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A CONTRIBUTION
TO THE HISTORY OF THE
UNACCENTED VOWELS
IN OLD FRENCH

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INTRODUCTION.

In all languages possessing a well developed expiratory accent there is found a tendency to weaken the syllables which stand on the lower stages of accentuation. The energy devoted to the production of the syllable on which the principle accent rests makes necessary a reduction in the force of the expiration of the other syllables of the word. The vowels of these syllables then show a loss of sonority ; and are liable to be reduced to that quality which demands the least amount of expiratory force for their articulation. Only that part is left which is absolutely necessary for the existence of the syllable. Or, in other cases, the reduction may go still farther. Then the weaker syllables disappear entirely ; the energy once expended on their production goes to swell the stress given to the more highly accented syllables, and they lose their independent existence. To observe the effect of these tendencies, we have only to compare a language with a chromatic—or musical—accent with one possessing a strong expiratory stress. In the former, all the vowels are articulated distinctly and generally preserved through long periods of development ; in the latter, they are first reduced in force, their articulation is slurred or hasty, and they often disappear entirely. For example, in ancient Greek, which had undoubtedly a tone-accent, there are almost no examples of the syncope of unaccented vowels.. The only cases of loss are due to the subsequent contraction of two vowels standing in hiatus after the outfall of an intervocal *j* or *w*. But in the Teutonic branch, on the other hand, the vowels of the unaccented syllables are constantly weakened ; from the earliest period this tendency may be observed, and its operation is unchecked at the present day. In modern English these vowels are continually slurred in pronunciation, and are frequently weakened to the so-called “irrational” vowel (the sound of *u* in *but*), which is oftentimes a mere voice-glide, without decided articulation.

Latin, it is probable, possessed an expiratory accent, although

the stress was not so great as in the other languages of the West Indo-European branch. The exact nature of the Latin accent is still a subject of discussion, but there is little doubt that it was partially, if not entirely, expiratory. (*cf.* Lindsay: *The Latin Language*, Chap. III; Seelmann, *Aussprache des Lateins*, p. 22, ff.) Throughout its entire history we find instances of the syncope of the unaccented vowels. Examples of the syncope under the earlier accent law are:

gavideo—gaudeo;

Old Lat. *aevitas—aetas*,

Old Lat. *primiceps—princeps*,

**osinos, ornus*, *cf.* Norse *aski*; Sl. *jasika*.

The laws governing this vowel loss are for the most part obscure, but it suffices for my purpose here to call attention to the fact. On the other hand, the weakening of unaccented short vowels, in syllables with slighter stress, according to the early accent law, is much more extensive and regular. All are reduced to *e*, and in open syllables still further, to *i*. (*cf.* Lindsay, p. 185, ff.)

Turning now to the Romance languages, we find there this principle still active and extended much farther than in classical Latin. Already in Vulgar Latin inscriptions, and from the testimony of the grammarians, the existence of the shorter syncopated forms is manifoldly proven. (For a list of examples from the inscriptions see Schuchardt: *Vocalismus des Vulgärlateins*, II, p. 381, ff.) It is especially marked in the loss of the unaccented vowel of the penultimate syllable in proparoxytones, some examples of which go back to the Vulgar Latin of Plautus (*domnus*). In Romance, this reduction is naturally more extended.

In Italian, for example, we find instances of the loss of a prot tonic vowel, especially in the neighborhood of a liquid, as in *cerebellum—cervello, verecundia—vergogna*, etc., and the syncope of the penult in proparoxytones is regular and thorough for a large number of consonant groups. (*cf.* Meyer-Lübke, *Ital. Gram.*, p. 169, ff.) But it is in French that this principle finds its fullest expression. In that language all pretonic and post tonic vowels are affected by it, with the result that all fall with the exception of *a*. This widely extended reduction has been

traced to the influence of the primitive Keltic dialects which were supplanted by the “*lingua romana rustica.*” (cf. Schuchardt: *Ztschr. f. Rom. Phil.*, IV, 142 ff.; Meyer-Lübke: *ibid.* VIII, 240; and *Rom. Gram.*, I, 538.) Keltic had a very strong stress accent, and this was transferred by the Latin-speaking Kelts to the latter language, and thereby the accented syllable was strengthened at the cost of its neighbors. Therewith stands also in undoubted connection the diphthongation of the vowels under the tonic accent, a process much more extended in French than in the other Romance languages.

For Diez and the earlier masters in Romance philology, the development of the unaccented vowels was a division of the science given over largely to the action of chance. Diez recognized, to be sure, that the outfall of the penultimate vowel in proparoxytones was the rule in French and Provençal, and that the ultima, when retained, resumes the form of mute, or feminine, *e*. Farther than this he did not go.

An unsuccessful attempt to formulate the laws governing the protonic vowels was made by Brachet (*Jahrb. f. Rom. und Engl. Sprache u. Litt.*, VII, 301), who tried to establish the significance of the Latin quantity for the French development. According to him, the long vowels are retained, while the short fall. This theory was completely refuted by Darmesteter, in his classic article soon to be mentioned.

The first to demonstrate clearly and convincingly the laws for the ultima was Zupitza (*Jahrb. f. Rom. u. Engl. Sprache u. Litt.*, XII., p. 180 ff.) His general results remain uncontested. He showed that when the ultima vowel is *a*, this remains in French under the form of mute *e*. All the other vowels fall, but after certain groups of consonants difficult of pronunciation, a “euphonic” *e* is developed. The principal groups indicated by Zupitza are,—cons. + *r*; cons. + *e*; *s* — *m*, *pt*, and the sound *g* = *d*; *zh* moreover in original proparoxytones, like *comitem conte*; *hominem—ome*. Worthy of note is Zupitza’s view that the mute or “feminine” *e* in these cases is not the representative of the Latin vowel of the ultima in a weakened state, but is a sound developed in French, and due to “euphonic” considerations. He did not express himself in regard to the chronology of the development.

Concerning the last point, Stengel (*Ztschr. f. rom. Phil.*, I, p. 106) endeavored to prove a difference in the date of the loss of *e* and *i* in the ultima. He emphasized the difference between such forms as *facit*—*fait*, *dicit*—*dit* on the one hand, and *placet*—*plaist*, *tacet*—*taist*, on the other, and concluded that *i* disappeared in Gallic Vulgar Latin, earlier than *e*, the former before and the latter after, the assibilation of the guttural. This view has since been adopted by Schwan (*Afranz. Gram.*, II., p. 70).

By far the most important contribution to the literature of the subject was the essay by Darmesteter on the vowels of the prot tonic syllable (*Phonétique française — La protonique non initiale non en position*. Romania, V, 140 ff.). Applying the rules traced by Zupitza for the ultima, Darmesteter showed that, in the development from Latin into French, the tonic accent may be considered as dividing the word into two equal parts; and that the final vowel of the first half is subject to laws of the same nature as that of the second half. For example, in a word like *bonitatem*, with two syllables before the tonic accent, there is a secondary accent on the initial syllable, while the second is un accented. The phonetic laws governing this vowel are: that, if it is *a*, it is retained under the form of *e* "mute"; if *e*, *i*, *o*, *u*, it falls, unless protected by a group of consonants which precede or follow it. The principal groups are *nt*—*gr*, *r*—*gr* and the "mouillées" consonants *l*, *n*, which always demand prot tonic *e* before them. Furthermore, Darmesteter showed how the action of the law is implicated by analogy; firstly, in the futures of verbs of the 4th conjugation, where the longer forms (*partirai*, etc.), are due to the influence of the infinitive; secondly, in derivatives (can be either substantives, adjectives, or verbs, like *amoros*, *felonie*, *coroner*), on which at all times the influence of the simplex made itself felt; thirdly, in words like *sentiment*, *faiseör*, *bateüre*, *bateüs*, etc., where the preservation of the prot tonic is due to a species of suffix-exchange, *viz.*, for these suffices, *mentum*, *torem*, *türam*, *ticum*, the stem of the first conjugation has been generalized, so that in Gallic Vulgar Latin the suffix forms are *amentum*, *atorem*, etc., which are attached to verbal roots of all four conjugations. Darmesteter leaves unconsidered the words with the prot tonic in position before two consonants, although he seems to believe that it is retained. Those

Words, not numerous, with more than two prot tonic syllables are not treated, although he assumes for them a secondary accent on the second syllable before the tonic (*aspéritatem*), indicating a system of binary accentuation. I may also call attention to Darmesteter's explanation of double forms like *soverain-soverain*, *beverage-beverage*, etc. The shorter forms are the primitive and normal; the longer are due to a tendency to "adoucissement," which is however not absolute. Darmesteter's work has formed the basis of all later research.

The next most important contribution was that of Meyer-Lübke, on the development of proparoxytones (Die Behandlung tonloser Paenultima im Romanischen: *Ztschr. f. Rom. Phil.*, VIII, p. 205 ff.). His principal results, so far as French is concerned, are the following: Syncope of the penult is older than the reduction of the tenues to mediae (so-called "Lautabstufung"), and also antedates the development of *a* to *e* in open syllables, but is later than the action of the laws governing the final vowel. Nevertheless, each particular case must be judged for itself. So, for instance, *a* has hindered syncope in *monachus*: *moine*, **fetacum*: *firie*. Again the ending *icum* loses the *i* of the penult later than *ica*, so we have *nache*, *manche*, on the one hand, *siege*, *age* on the other. In the first, syncope has taken place before the weakening of the tenues, in the latter, after this process. In general, according to Meyer-Lübke, syncope in proparoxotones (apart from some very old cases like *caldus*, *frigidus*, *virdis*) is a comparatively late process, which set in after the dialectal separation of the Romance languages. It is, however, older than the earliest literary monuments, and mostly antedates the individual peculiarities of the particular languages. In French it may be traced back to the substitution of the strictly expiratory accent of the Kelts for the chromatic expiratory accent of Latin.

A later treatise on the proparoxytones in general is the short work by Andersson "Zum Schwund der nachtonigen Vocale im französischen" in *Sprakvetenskapliga Sällskapets Förhandlingar*. Upsala, 1893. In general, his results are not different from those of Meyer-Lübke.

Another highly important contribution was made by Karsten (*Zur Geschichte der altfranzösischen Consonantverbindungen*.

Freiburger Diss., 1884). In this work, entirely new objective points of view were set up. The part played by the principles of "Satz-phonetik" was for the first time insisted on, with the result of unifying the treatment of many phenomena which had hitherto seemed incongruous. Especially worthy of mention is the explanation of the double forms of *super* (p. 42 ff.); according to Karsten the shorter forms *sor*, *sur*, are explained by the character of the word as a proclitic preposition. Another fertile suggestion of Karsten's is that relating to the development of the secondary groups *icus*, *idus*, which led him to a revision of the old notion of "supporting groups" of consonants. He shows that phonetically we cannot speak of supporting groups at all, and that the preservation of the ultima after such groups stands in no direct relation with them. Where long groups arise by syncope, the language has other means at its disposal for simplifying them. So the relation between consonant group and final vowel is not one of cause and effect, rather it is due to a coincidence between the groups and the longer forms of the sentence-doublet.

In connection with this work of Karsten, I may name the kindred one of Kauffmann (*Die Geschichte des consonantischen Auslants im Französischen*. Freiburger Diss., 1886), although this does not enter so much into the pre-literary development of the final vowels. The general theme of the work, that the tendency in Old French was always in favor of final consonants, not vowels, must always be taken into consideration in discussing the history of the last.

The last important contribution is that of A. Thomas (*La Loi de Darmesteter en Provençal*, Rom. XXI, 7 ff.), although it has more direct importance for Provençal than for French. He treats especially the Provençal forms of words with the suffixes, *mentum*, *torem*, *ticum*, etc. These show a retention of the prot tonic, which is contrary to the law of Darmesteter. There are in Provençal three series of words with these endings, one in *amen*, *ador*, always associated with verbs of the first conjugation; one in *imen*, *idor*, with verbs of the fourth conjugation; and one in *emen*, *edor*, with verbs of the second and third conjugations. If Darmesteter's explanation—levelling to the stem of the first conjugation—which he established for French alone, holds good

here, we should expect *amen*, *ador* for all three series. Thomas accordingly takes recourse in the old notion of the influence of the simplex on the derivative; these suffixes were constantly associated in the minds of the people with the verbs to whose stems they were attached, and they thus maintained a quasi-independent existence. Accordingly, the protonic vowel is retained as legitimately as the initial vowel is always retained in independent words. Thomas hints at the application of this theory to the French forms, but does not carry it out in detail.

The results of Meyer-Lübke (*Rom. Gram.*, I), and of Schwan (*Afranz. Gram.*, II, 55 ff.), will be referred to so constantly in the course of the following discussion that there is no need to summarize them here.

A recent work of great importance for comparison considers the history of the unaccented vowels solely in names of places. Lindström.—“*Anmärkingar till de obetonade vocalernas bortfall i några norn-franska ortnamn.*” Upsala, 1892. His results agree in the main with those of previous writers. As this contribution will cite for the most part only appellatives, Lindström’s conclusions will be mentioned only in the case of striking agreement or difference. In general it seems to me that place-names should be used with more caution than common substantives in investigations of this kind, being greatly exposed to the action of folk-etymology, as Lindström himself points out. In other cases, the mediaeval Latinization of the name probably represents only approximately the original Keltic or Teutonic sounds. See also the reviews of this work by Vising, *Littbl. f. Germ. u. Rom. Phil.*, XIV, 288 ff.

I propose, in the discussion of the history of the unaccented vowels in Old French, to consider, first, this development of the ultima vowel in (original) paroxytones; second, the treatment of original proparoxytones; third, the protonic vowels.

Before passing on to the consideration of the development of the unaccented vowels in detail, I wish first to touch upon some general principles which are of importance for an understanding of this development.

First and foremost, we have always to bear in mind that the laws for the unaccented vowels, as for all other sounds, apply only to the genuinely popular words of the language, the “Erb-

wörter," and not to the words which were borrowed from the classical Latin at different periods, the "Lehnwörter." Now the treatment of the unaccented vowels is often of great importance as a means of distinguishing these loan-words. In most cases we have other criteria to help us. For instance, the word *castum-chaste* betrays itself as a loan-word by the preservation of the *s* not less than by the retention of the final vowel. So *fragilem-fraile* compared with *soliculum-soleil*, shows a retention of the ultima after the secondary group, guttural + *l*; this, combined with the non-palatalization of the *l*, enables us at once to pronounce it a loan-word. I shall have occasion many times in the course of this discussion to call attention to the distinction between inherited or popular words, and loan-words.

Furthermore, in abstracting a phonetic law from the development exhibited by a certain group of words, we must look apart from all those which are subject to the disturbing influence of analogy. All forms which stand in a "system," which are associated in the mind in groups or categories, are liable to a process of levelling, which often suspends the action of the phonetic laws. So all verb-forms are to be regarded with more suspicion in deducting such a law than substantives or adjectives, which lead a more isolated existence. For instance, Willenberg in his study of the present subjunctive of the first conjugation in Old French (*Historische Untersuchung über den Conjunctiv praesentis der ersten schwachen Conjugation im Französischen. Rom. Stud., III, 373 ff.*) proposes the law that the endings *rm*, *rn*, demand a "supporting" vowel, and cites the form *retornes* (Rose 2334) as an example. But an examination of the substantives with the same ending, *jorn*, *ivern*, etc., contradicts the assumed law, and shows that *retornes* is one of those subjunctive forms which assumed early the analogical *e*. Considerations like to this will always make their appearance.

Of great importance for the development of the unaccented vowels is the principle of "Satzphonetik." The position of the word in the sentence is of great weight in the treatment of the sounds composing it. In the ordinary spoken language, a word is not isolated, but stands in the most intimate connection with its fellows in the sentence. The syllables composing a sentence arrange themselves into certain groups, the divisions of which

do not always correspond with the (written) words. These groups consist of a greater or less number of syllables, bound together by a unity of respiration. The syllables that are weaker in expiratory force are subordinated to those with greater stress, and group themselves about the latter. These "stressgroups" ("Satztakte," see Sievers, *Grundzüge der Phonetik*, 4th ed., p. 214 ff.) form a higher unity in the sentence of which the syllables are the elements. Now it is evident that when a syllable, which may be an entire word, stands in one of the subordinate positions in a stressgroup, the sounds composing it will be treated like the sounds of those syllables having a lesser stress,—that is, like the unaccented syllables of words which form stressgroups by themselves. In the stressgroups, too, the final or initial sounds of one word are conditioned by the sounds of the words which precede or follow them. In this way double forms arise, due to the varying positions a word may assume in the stress-group. A syllable on which the main accent of a group rests will assume one form; placed in a position where a lesser expiratory force is given to it, it will assume another. The final sound of a word varies according as the following word begins with a consonant or a vowel. These principles are in active operation at every stage of the language, and are of especial importance in connection with the minor parts of speech—prepositions, conjunctions, adverbs, etc. (*cf.* for this whole subject, Neumann: *Ztschr. f. Rom. Phil.*, VIII, 243 ff.; Schwan: *Ibid.*, XII, 192 ff. and Karsten: *op. cit.*)

As said above, we can see this principle at work in all periods of the history of the language. Even in the classical Latin traces of its influence are not wanting. Examples of the differentiation into ante-vocalic and ante-consonantal forms are seen in conjunctions like *atque*, *ac*, *neque*, *nec*, etc. And it has been suggested that the shorter syncopated forms often met with (*lar(i)dus*, *cal(i)dus*, *audac(i)ter*, etc.) are due primarily to the same cause, namely, the reduction of the unaccented syllables in more rapid pronunciation in the stress-group (*Schnellsprechformen*: *cf.* Osthoff: *Wölffins Archiv*, IV, 355 ff.). When the great wave of syncope swept over the language later, in Gallic Vulgar Latin, it is probable that this principle played a great part; the results are difficult to trace in all cases. Under the greater force of the

expiratory accent given to the tonic syllable, the vowels in the syllables with slighter stress were weakened or dropped. Now the stress of these syllables would vary according to the position of the word in the sentence. In this way double forms arose; afterwards the reasons for their origin being forgotten, they would be used promiscuously. Then the one generally supplanted the other, through causes which are often difficult to determine; sometimes it was due probably to chance alone. The results of these various processes lie before us in the earliest literary French.

A word here as to the variations in stress, especially in proparoxytones. Karsten (*op. cit.*, p. 33) assumes as possible sentence-doublets in the case of the suffix *aticum* the forms *ateke*, *atек*, *atke*, *atk*. Now the second of these forms presupposes a greater degree of accentuation on the penult than on the final syllable. Our knowledge of the degrees of accentuation in Latin is extremely limited; the position of the secondary accent even is a matter of contention. But if we take into consideration the facts that syncope of the penult is met with from a very early period, that such syncopated forms are frequent in the inscriptions, while apocope of the ultima in proparoxytones is very rare (the only examples are *famul*, *mascel*, etc.; for these see Brugmann: *Indg. Forschungen*, IV, 220 ff., who explains them by a ground-form, **famlos*, with subsequent syncope and development of a "svarabhaktic" vowel, **famls*, *famul*; *famulus* is due to analogy), and that the few French words which show a loss of the final syllable may most probably be considered loan-words (*cf.* infra, p. 87). The accentuation *aticum* would seem to be unknown to the language at any period. And this is natural. The syllable standing next to the chief accent suffers more from the tendency to reduction than syllables more remote. The great stress given to the tonic syllable reduces to a corresponding degree the energy of expiration expended on the next syllable. The sequence of accentuation, chief accent, secondary accent, unaccentuation, $\swarrow \searrow \nwarrow \nearrow$ seems to be unknown in Latin or Romance. Such an accentuation is not, however, impossible, as the relations in Old High German show. There a short vowel in an open syllable is syncopated after the secondary accent immediately follow-

ing the chief accent, as **máhtiⁱgро, mahtigro* (cf. Paul in Paul u. Braunes *Beiträge*, VI, 144 ff.).

A last question remains to be considered before proceeding to the discussion of the "groups." What was the quality of the "indefinite" vowel to which the others were reduced? Meyer-Lübke (*Rom. Gr.*, I, 245), gives *e* "gutturalen Laut," as the vowel peculiar to North French. This sign *e* represents the sound of the modern Fr. "*e feminin*." According to Sweet (Primer of phonetics, p. 86), this is a front vowel, like *ö* in *peur*, but partially unrounded. Schwan (Af. Gr., 56) represents this sound as "dumpfes" *e* ("Stimmtionlaut"); on the following page he sets it as equal to *ö*. Apart from the earliest literary monuments, the Strassburg Oaths, and much more rarely, the *Chanson d' Alexis*, this sound is always written *e*. In the Oaths we find besides *e* (*fazet*), also *a* (*cosa, fradra*), and *o* (*poblo, karlo*); the last may be a Latinism. I am inclined to believe that this indefinite vowel had always a more anterior articulation; it was a "front" vowel. For the representatives of Lat. *e*, *i*, *a*, this view presents no difficulty, but for *u*, *o*, a slight shifting of articulation must be assumed (*a* was already a front vowel in Latin. cf. Seelmann, p. 169 ff.). Here the fact that already in the classical language *u*, *o* could be reduced to *e* or *i*, is of importance. Compare for instance, *novitas*: Greek *νεότης*, *agimus*: Greek *ἀγούειν*, *lacrima*: Old Latin, *dacruma*, *ilico*, from *insloco*, *anno*, but *anniculum*, *socio*, but *societas*, etc. This indicates that the "guttural" vowels had a tendency to be shifted farther front under a weak accent stage. The fact then that in French *e* is always chosen as the sign of the weakened vowel, and that this *e* has in Modern French a "palatal" quality, are farther proofs. So that the assumption that the indefinite vowel to which all the others were reduced was a front vowel seems to be well supported. This view removes a difficulty in the development of guttural consonants before *u* of the ultima, as in *ati-cum age, *pēdīcum: piege*, etc. (= *adzhe, predzhe*). If the *u* retained its "back" quality, the shifting of the consonants from a "back" mute to a "blade-point" spirant is difficult to account for. We should expect *adge* (*g* = German *g* in *sagen*). Before a front vowel *e*, however, the shifting of *g* to *zh* is natural and is parallel to that of initial *g* before *a*.

PART I.

The final vowel in original paroxytones.

Final a.

a is always retained under the form of *e* (= *e*). The only exceptions are found in the Strassburg Oaths and the Alexius, where *a* seems to be retained as such. It was probably only a sign for *e*, as we find *a* also used to express this sound where it is not etymologically justified, for example in *fratrem* : *fradra*. (cf. Koschwitz. *Commentar zu den ältesten französischen Sprachdenkmälern*, p. 8). Examples of the retention of *a* in the Oaths are *dunat*, *aiudha*, *cadhuna*, *cosa*. It is unnecessary to give further examples of the rule.

The retention of the vowel *a* in distinction from the others, is due undoubtedly to its greater sonority. A weakening process which affected the other vowels to such an extent that they lost all syllabic function, would still leave a perceptible voice for *a*. So much more respiratory energy is necessary for its production that it is the most capable of all of withstanding total reduction through lessening of the stress.

Exceptions.—Most interesting are certain cases of sentence-dblts which some adverbs show. So, for example, *hac hora*: *ore* (*s*) and *or*, and its compounds, *encore*, *encor*, *aores*, *aor*, in which *e* from *a* has been absorbed by the voice of the *r* (*adhoram*), *desores*, *desor*; *oncore*, *oncor*.

But we find only *elores*, (compare Modern French *alors*), *quore* (Marie de France. cf. Godefroy.) *qua hora*.

Possibly also the dblts *bor*, *bore*, *mar*, *mare*, (*bona hora*, *mala hora*?) belong here. Cf. Meyer-Lübke, *Rom. Gr.*, I, 522. The earliest example of the shorter form is found in the Passion, L. 366 and the Leodegar L. 5, both before vowels; the first purely French monoment in which they occur is the paraphrase of the Canticles *or* L. 57, *encor* L. 40. Meyer-Lübke rejects the view that these are the ante-vocalic and the ante-consonantal forms respectively, owing to the fact that already in Alexius *or* is used before consonants. He explains the short forms as the result of the frequent use of the word. But in the Passion and Leodegar they are still rightly distinguished. And nothing hinders the assumption that already at an early

date a promiscuous use of the two originally distinct and characteristic sentence-doublets had set in.

Another example of doublets is found in the adverbs, *umquam: onques*, and *onc, numquam: nonques, and nonc*. The latter undoubtedly represent the ante-vocalic development. Later, according to this model, a number of doublet forms for adverbs were formed, so *avec—aveques, aluec—alueques, poruec—porueques, iluec—ilueques, donc—donques*. cf. Meyer-Lübke, Rom. Gr., II, 642. *puis* is probably from **postius*, not *post-ea*. cf. Schuchard: *Ztschr. f. rom. Phil.*, XV., 240. But compare the form *puisse-di*. (Chev. au cygne).

Besides the usual *hors, fors*, a few examples of *fores* are found. (cf. Godefroy, *Dictionnaire*, one ex. from the *Chans. de Renaud*.) This is undoubtedly from *foras* (cf. Prov. *foras*); the usual forms *fors, hors*, may then be early generalized forms, in which *e* from *a* has been absorbed by the voice of the *r* instead of from *foris*, as is generally accepted.

Further doublets are *mica: mic*, and *mi* (Raoul de Cambrai), the word was used as a negative particle; *interea*, therefrom *dementieres—dementiers* (Marie de France cf. Godefroy); *ende—mentieres-endementiers*. (Renart.) *illa: elle*, and *el* (cf. Marie de France, Fraisne, 36). Possibly *el* arises by a process similar to that which causes the loss of the final syllable in *image, siege*, etc. French has an inherent antipathy against proparoxytonic stress-groups. So in combinations like *dít-elle fit-elle* the paroxytonic accentuation was restored by the fall of the final syllable. Compare the accent-shifting in *donné-je*, etc., which is due to the same cause. I owe this suggestion to Prof. Neumann.

Another group of words showing double forms, with apparent loss of final *a* in one, are certain feminine substantives of the third declension, in *-tatem*, which are more or less irregular in other respects; so *civitas-cit* (never *cite*) obl *cité*, *paupertas: poverte* and *povert, potestas: poeste*, and *poest, tempestas: tempeste* and *tempest*. cf. also *jovente, jovent*, from *juventus-tas*.

Of these the first, *cit*, may be explained by its use as a proclitic before names of cities. It represents the shorter doublet with loss of final *e* from *a*. The others are rare and probably due to analogy. When in place of the original *paupertas-tatem*,

a **paupertata* of the first declension had been formed (see Meyer-Lübke, *Rom. Gram.* II, p. 22) according to the analogy of *juventa*, *juventas*, it was not difficult to go a step further and create a *paupertus* on the model of *juventus*.

Most of the other cases of the apparent loss of final *a* are due to a change or confusion in gender. I indicate only a few of them. This kind of analogical change occurs, as is natural, most frequently with names of animals. Thus, besides the old Fr. *daime* < *dama*, we find a masc. form *dain*, which has alone been preserved in mod. Fr. So also *formica*: *formie* and *formi*, *lusciniola*: *rossignol*.

Another quite frequent case occurs with names of plants and trees. The latter have all become masculine in gender, and with this change was sometimes associated one in form; thus *alba spina*: *albespin*, (Simon de Pouille) but mod. Fr. *aubepine*. The form is remarkable because of the preservation of the prot tonic *a* in the adjective. The simplex *espin* is also found (Les Loherains).

Betula: *bole*, and *bol* (cited by God. from a chart of 1215). (Probably a loan word; **beille* would be the regular form.)

Cliva, *olive*, and *olif* (Les Loherains).

Many of these examples are probably new formations in French, and do not go back to Vul. Lat. ground forms, *spinus*, etc, as *albespin* shows.

The same change of gender, carrying with it a change of form, may be noticed in other words.—Ex. *Balaena*: *baleine*, and *balein*, *furca*: *forche*, and also *forc* (Macaire) from **furcum*. *costa*, *coste*, and *cost* (Voyage de Charl., 211). *Medulla*, *moëlle*, and *moël*.

Plica, *pli*, and *ex-aura*, *essor* are probably post-verbal formations from the verbs *plier* and *essorer*.

Sagina, *sain*, has been explained through a suffca change in Vulg. Lat.; *īmen* took the place of *īna*. See Cohn *Suffixvandlungen*, p. 57.

Likewise *pastinācem*, *pasnai* for *pastinaca* (cf. Cohn, p. 292). The vowels ī, ē, ö, ü in the ultima.

Zupitza's law, that these vowels fall unless supported by "euphonic" considerations, viz., after a group of consonants difficult to pronounce, undoubtedly corresponds to the external

facts of the case. But does it explain equally the underlying principles? In the first place, the explanation that the development of the final vowel is due to the desire for "euphony" must be rejected, so far as it assumes a conscious striving after harmonious effects of sounds. The phonetic laws always work without the consciousness of the speech community in which they act; they are due wholly to physiological causes acting unknown to the will of the individual speaker.

There is, however, a general tendency at work in all languages to simplify the longer consonant combinations that arise. The assimilatory processes that are so marked in the development of Romance are one expression of this. What then explains the partial loss and partial preservation of the final vowel?

In connection with this subject the principles that govern the division of syllables should be considered. A single expiratory syllable can last only from the implosion of the mute which precedes the sonant of the syllable to the formation of the stop of the next following mute (cf. Sievers, *Phonetik*, p. 186). Within these limits the sounds are arranged according to the degree of sonority. The most sonorous sound is the real syllabic, the others are non-syllabics. The sounds are classified according to sonority as follows: vowels, vowel-like consonants (of these the liquids are more sonorous than the nasals), voiced spirants, unvoiced spirants, voiced mutes and unvoiced mutes. Therefore, at the end of a syllable we can have the succession vowel, liquid, mute, or vowel, spirant, mute, but not the reverse. A combination of two mutes at the end of a syllable is physiologically impossible. If, however, we do find written groups like *apt*, *akt*, etc., we ignore in such the existence of a slight secondary syllable, or voice-glide ("nebensilbe") formed between the two explosives. These voice-glides must be formed after every such combination of stops.

In Latin, if we may accept the testimony of the grammarians, such groups were not uncommon at the beginning of a syllable. (cf. Lindsay, p. 125; Seelmann, p. 139.) They divided in this way *no-ster*, *prō-pt̄er*, *a-gmen*, *no-cl̄em*. How much these grammarians were influenced by the theories of Greek phoneticians it is impossible to say; it is probable, however, that they extended this system of syllable-division farther than the facts

warranted. (cf. Kaufmann, op cit., p. 15; he divides *ag-men*, *prop-ter noc-tem*). At any rate, when under the influence of the strong expiratory tonic accent, the final syllables began to be weakened, these groups, which had hitherto stood at the beginning of the final syllable, would come to stand at the end of the preceding tonic syllable. In this position, so long as each consonant maintained its full value, a slight "nebensilbe" would always be necessary for pronunciation. The sonant of this "nebensilbe" would be the original final vowel in a reduced state. But the tendency of the French language was irrevocably toward consonantal finals; and with this was associated another, equally strong, toward the reduction by assimilation of long consonant groups. When the assimilation had been completed, and the double consonant had been reduced, so that there was but a single stop after the sonant of the tonic syllable, then the weakening process would reassert itself and the "nebensilbe" would be lost. The expiratory force hitherto expended on its production, would go to swell the stress of the tonic syllable. So I would assume the development stages of a word like *noctem* (accepting Thomsen's theory of the palatalization of the consonants) *noc-tem*, *noc-te*, *noc-tee*, (*e* here represents the voiced element following the explosion of the second stop,) *not'-te*, *noit-e*, *nuit*.

Somewhat different would be the development of a final syllable containing a liquid or nasal. Take, for example, *pa-trem*. The development of the accented vowel shows that the combination *tr* was never regarded as closing the syllable. This is undoubtedly due to the peculiar nature of these sounds, the liquids and nasals. They are capable of functioning either as vowels or consonants (syllabics or non-syllabics, more properly); and this distinction is a purely relative one, depending on the nature of the surrounding sounds. When now the final syllable in *pa-trem* was weakened, the tendency would be toward the reduction of the syllable to that element of it demanding the least expiratory force. The sonority, and consequently the stress energy is much less in the case of the vowel-like consonants than in that of the real vowels. Accordingly, the final syllable would be reduced to the mute + the liquid, serving as syllabic *pe-dr*. Or under certain conditions where the stress was

greater, a "svarabhaktic" vowel would be developed from the voice of the *r*, *pe-dre*. That this represents the real nature of the development, and that the final vowel was not retained as such, but that the *e* of *pedre*, *vendre*, etc., was only a sign to express syllabic *r* is, I think, proved by the development of such words as *major*: *maire*, *minor*: *moindre*, *grandior*: *graindre*, *pejor*: *pire*, etc. Schwan (Afr. Gr., 57), on the contrary, assumes metathesis of the *r* for these cases (on the ground of Ital. *sempre*, *quattro*). But the laws governing the final vowels and consonants are quite different in Italian. There is no weakening of final syllables there as in French. In my opinion, the loss of the final vowel in these cases is evident; the spelling *re* can only express vocalic *r*.

A real exception to the rule that final *e*, *i*, *o*, *u* fall, is furnished by those words—not numerous—where these vowels stand in hiatus after the tonic. In these the contraction of the two vowels to a diphthong took place early, probably long before the action of the law for the finals. As a result of this fusing, the originally final vowel is naturally retained as part of the diphthong. (cf. Meyer-Lübke: *Rom. Gr.*, I, 255.) *Examples.* —Final *e*, *aer*, *air*; final *i*, *fui*: *fui*, *mëi*: **miei*, *mi*, *tui*: *toi*, *sui*: *soi*, **düi*: *düi*, *cui*: *cüi*, **illuüi*: *illui*, etc.

Final *o*, *ego*, (with early loss of *g*), *eo*, *eo*, **stao* (for *sto*. cf. Meyer-Lübke: *Rom. Gr.*, II, 258), **esto*: *estois*, *düs*: *dous*, *deus*.

Final *u*, *dëum*: *dieu*, *pium*: *piu*, *judaeum*: *judieu*. *Hebraeum*: *Ebrieu*, *Matthaeum*: *Matieu*.

The apparent exception in *meum*: *mieu* and the other personal pronouns is due to their character as proclitics.

All other examples of the retention of final *e*, *i*, *o*, *u*, after a simple consonant, must be considered either as loan-words, or as due to some analogical influence, apart from a single category not very extensive, where the effect of the position of the words in the sentence makes itself felt. Most of these show double forms. They have been discussed in extenso by Neumann: (*Ztschr. f. Rom. Phil.*, VIII, 382 ff.), and there is no need here to recapitulate his conclusions.

Examples are *föcum*: *fou*, *jöcum*: *jou*, *locum*: *lou*, *fagum*: *fou*, **traucum*: *trou*, *paucum*: *pou*, *caecum*: *ciu*, *graecum*: *griu*, *clavum*:

*clou, *blavum: blou, *sclavum: esclou*; adjectives *iū -ivum, iū* (only in the Eastern dialects). *Andegavum: Anjou, Pictavum: Poitou*, etc.

All other cases are either loan-words, or new formations. Loan-words for example, *rarus: rare, avarus: avare*, (O. Fr. *aver.*) ; *ritus: rite, vasem: vase, vivacem: vivace*, cf. **vivacius: viatz, canus: O. Fr. chanes* "cheveux blancs," *molem: mole, infamus: infame*, etc.

Other cases may be explained through the exchange of suffixes, thus, *junicem: genisse, fornacem: fornaise, icia, atia* for *icem, acem, mordacem: mordache*, is an Italian loan-word. cf. Cohn: *Suffixwandr*, p. 295. **abelamen, aveline*.

Other instances may be ascribed to the analogical formation of new feminine forms in Vulgar Latin or in French itself. Examples.—**excarduus: escharde*, Old French also *eschard*.

Gruem: grue, from a V. L. **grua, faginus: faïne, intybus: endive, vocalis: voiel*, but mod. Fr. *voyelle*. *Ramum: rain* and *raime*. See Meyer-Lübke: *Rom. Gr.*, II, 434.

Very frequently the two forms, masculine and feminine, exist side by side in Old French. The majority are original neutrals. Such are *allium: ail* and *aille* (cited by God. from Th. de Turbeville) *augurium: eür* and *eüre* (Berte as *grans pieds*), *capitum: chevez*, and *chevece*; **bestialium: bestail* and *bestaille*; *brachium: braz*, and *brace*; **farsum; fars*, and *farse*; *floccum: floc* and *floche*; *fūstem: fust*, and *fuste*; **capellum: javil* and *javelle*; *justitium: justis* and *justice*, a learned word.

Meretricem: meretris and *meretrice*, probably a loan-word.

Nardum: nard and *narde*; *orbum: orb*, and *orbe*; *pomum: pun* (Floire et Blaudreflor) and *pomme*, *pastum: past* and *paste*, **roccum: roc* and *roche*; *servitium: servis* and *service*; **sonium: soin* and *soigne*. Perceval, *Solium: sueil* and *sueille*; *supercilium: sorcil* and *sorcille*; *oleum: uil* and *uille*; *ostium: uis* and *uisse*, etc., etc. The final vowel after a group of consonants.

Sonant + consonant. This combination, standing at the close of a syllable, is perfectly pronounceable. There is no break in the expiratory current in passing from the vowel-like consonant to the spirant or mute, and the synthesis is effected without a vowel-glide. So there is no need of a "Nebensilbe" after the explosion of the mute, and the final syllable is weakened to

nul, with loss of its vowel. All exceptions must be accounted loan-words.

n + mute. This was a group already very frequent in Latin. Its French development offers no difficulty. Examples: *ab, ante, avant, montem: mont, centum: cent, tantum: tant, de, unde, dont, quando: quant, graudem: grant, rotundus: reont*; exceptions: *carpentum: charpente*, is probably a post verbal derivative of *charpenter*, *sequente, soventre*, which show a widening with *re*, also found in Rhaeto-romance and Provençal; it is probably due to the analogy of other adverbs in *re*, like *sempre, dementre, etc.* cf. Meyer-Lübke: *Rom. Gr.*, II, 643. *hirundo aronde*, probably from a Vulgar Latin, **hirunda*, cf. Prov. *aronda*.

Loan-words are *mundum: monde*, Old French also *mont, glandem: glande, lendem: lende*.

n + s. Here the nasal had already fallen in Vulgar Latin. Examples: **defensum: defois, mensem: mois, francensem: francois, trans: très*.

All exceptions are loan-words, like *penso: pense, densum, dense, immensum: immense, etc.*

n + guttural. In this group the nasal had already in Latin a "velar" or guttural character (cf. Lindsay: *op. cit.* p. 65). The guttural character of the nasal was probably preserved in French till its final assimilation with nasalization of the preceding vowel. When *c, g* before *e, i* were assilated, a similar change probably occurred in the nasal. The regular loss of the final indicates an always homorganic group.

Examples.—*juncum: jorc, sanguem: sam manc, cum: manc, *flancum: flanc, longum: long, etc.*

For *n + pal. c, g + e, i*, apart from these cases where the *c, i* is in hiatus. I find only the following instances:

Longe: loin; and verb forms, *plangit: plaint, jungit: joint, frangit: fain't*; *ängit: oint*. In these *n* was assimilated to the palatal *g* after the shifting of the latter, and both were palatalized, after which the stop of the *g* was loosed and palatal *n* alone remained. Probably no voice-glide was ever necessary. For *n + palatal c* there are found only the following examples, both of which are liable to suspicion, *bilancem: balance, lyncem: l'once*. The Vulg. Latin ground forms were probably **bilancia*, **lyncia*; cf. Ital. *bilancia, lonza*; Prov. *balansa* (see Schwan: *Af. Gr.*, p. 37).

The Latin group *nf* is not found in final syllables.

m + consonant. The only Latin combination is *m* + labial. Here, as in the case of *nt*, the synthesis of the labial nasal with the homorganic stop is completed without any break of continuity, and the final vowel falls. Examples, *ambo* : *ams*, *rhombum* : *romb*, *campum* : *champ*, *tempus* : *tens*, *plumbum* : *plon*, *rumpit* : *ront*.

Loan words are : *bombus* : *bombe*, *limbus* : *limbe*.

l + consonant. Here likewise the ultima is reduced to nul, synthesis being too close to admit the formation of a "Nebensilbe" after the explosive. Examples. *l* + dental. *altum* : *halt*; *mältum* : *molt*, *pälsus* : *pols*, **malaldum* : *marald*; *saltum* : *salt*. Exceptions, *celsum* : *cese* (see Scheler: *Lexique*, p. 77). **salsum* : *salse* (feminine) : *volutum* : *volte* (feminine). The etymology of the first word is doubtful; if correct, it must represent a non-popular development.

l + guttural. This group should be especially noted, for comparison with the same as a secondary group in proparoxytones. Here the final vowel is always lost.

calcem : *ehalz*; *falcem* : *falz*. Examples of *l* + *c*, *g* before *o*, *u* are not numerous. It occurs mostly in words of Teutonic origin, like *fulco* : *folc*; *balco* : *balc*. *falco* : *falc* is Latin.

Exceptions, *remulcum* : *remorque*; *valgus* : *vouge* (cf. Hoffmann: *Rom. Forsch*, II, 360); both are probably new feminine formations.

l + labial. *salvum* : *salf*; *solvit* : *solt*. Exceptions, *album* : *albe*; *calvum* : *chalve*. These two adjectives, with apparent preservation of the final vowel, are probably original feminine forms which have been generalized, a process not uncommon. cf. *riche*, *sage*, O. Fr. *roit* but N. Fr. *raide*; O. Fr. *fers* but N. Fr. *ferme*, etc. Loan words, such as *balbs* : *balbe*, *bülbus* : *bulbe*; *κολπος* : *gouffre* : *gouffre*.

r + consonant. A very frequent combination, and one that offers no difficulty as regards the weakening and loss of the final vowel.

Examples, *r* + Dental. *artem* : *art*, *hortum* : *ort*, *fortem* : *fort*, *mortem* : *mort*, *sürdum* : *sord*, *tardum* : *tard*, etc. *r* + s. In the following, the *r* has already been assimilated in Vulgar Lat. *sürsum*: *süsüm*: *sus*, *deorsum*: *deosum*: *jös* or *jus*, *extrorsus*:

estros. Farther, *cursus* : *cors*; *ursus* : *ors*; *sparsum* : *espars*; *morsus* : *mors*. Exceptions, *burdo* : *bourde* (also *bort*, regular) is probably of learned origin. O. Fr. *certes* : beside *cert* is probably derived from *certas*.

r + guttural. **quadri-furcum* : *carrefour*; *arcum* : *arc*; *porcum* : *porc*.

largum : *large* is a generalized feminine. O. Fr. *cerche*, (Arthur, etc.) “*cercle, rond*” probably represents **circa* for *circum*.

r + Labial. *servum* : *serf*, *cürbus* : *corb* (but N. French *courbe*, fem.) *ervum* : *ers*, *corpus* : *cors*, etc. Exceptions, *morbus* : *morve*. The etymology is doubtful (see Schuchardt: *Ztschr. f. rom. Phil.*, XI, 494. The word is feminine in O. Fr.) Loan words, *serpens* : *serpe*; *verbum* : *verbe*.

Spirant + mute. The combinations, *st*, *sp*, *sc* are the only ones found in Latin. They could begin, as well as end, a syllable; and the grammarians always divide *no-ster*, *i-ste*, etc. As there is no stop in these groups before that of the final explosive, there would be no break of continuity when under the Fr. accentuation they came to stand at the end of the syllable; so the final vowel falls regularly.

Examples: *s+t*, *iste* : *est*, *christus* : *critz*, *hostem* : *ost*, *tostum* : *tost*, etc.

Willenberg (*l. c.*, p. 279) is certainly wrong when he cites the conjunctive forms, *aprestes*, *ostes*, etc., as proof that this group demands a “supporting” vowel. They must be early examples of the analogical *e*. Likewise he cites *laisses*, *oses*, where the *e* occurs after *ss* (<*x*) and *s*, before the *s* of the personal ending. cf. the substantives, *bois*, *nes*.

Exceptions.—All loan-words, as the preservation of the *s* in N. Fr., shows *castum* : *chaste*, *robustum* : *robuste*, *tristem* : *triste*, *vastum* : *guaste*, *regestum* : *regeste* : *regestre*.

s + guttural. The same result so far as the final vowel is concerned. *pasco* : *pais*, *discum* : *dois*, *fascem* : *fais*, *cresco* : *crois*, **friscum* : *frois*, N. F., *fraîche*, a generalized feminine, *lūscum* : *lois*; N. Fr., *louche*, **lascum* : *lasche*, had already generalized the feminine in O. F. *s+p*. **cr̄spu* : *cresp*, N. Fr. *crêpe*, *diaspre* from **jaspis* : *idem* is a loan word.

Mute + mute. The only Latin combinations are *ct*, *pt*, and very rarely *gd*, *bd*.

Guttural + dental. I have already discussed fully the history of this group. The final vowel is never retained after it. Examples are very numerous. *Factum: fait, lectum: lit, fructus: fruitz, noctem: nuit*, etc. Occasionally without the production of parasitic *i*, in loan-words, but still with loss of the final vowel; so *contractus: contrat, fluctum: flot, subjectus: sujet, ructus: rot*.

With this I may treat the group *nct*. Like *ct*, this shows early assimilation, *nct: nct': nt': int*. The assimilatory process was probably completed before the last weakening of the final syllable. Examples, *cinctum: ceint, *finctum: feint, sanctum: saint, inctum: oint*, etc.

A remarkable exception for the group *ct* is *enoites*, "cette nuit," beside *enuit* (St. Bernard). Connection with *noctem* cannot be doubted. Has the syllable *es* been attached according to the analogy of other adverbs of time like *ores, onques*?

The group *gd* seems to occur only in *smaragdus: esmeraude*, a word that is not entirely popular. See Gutheim. *Ueber Consonant-Assimilation im Französischen*, p. 22. The preservation of the final vowel indicates that the assimilation *gd > ud* had not been completed when the law for the ultima went into effect. This is in keeping with its character as a loan-word.

Labial + Dental.

This primary group should be especially remarked, for comparison with the corresponding secondary combination. In the majority of examples, the final vowel is not retained, thus:

corruptus: corrots, deceptor: deceit (cited by God. from P. de Langtoft). *sūbtus: sotz, septem: set, ruptum: rout, cryptus* (for *crypta*): *crot* (cited by God. from Mace 'de la charité'). Exceptions, *aptus: ate*, and its compound **ad-aptus: aate*. This adjective has been already in the earliest Fr. levelled in favor of the feminine form.

I need not enter into the manner of the assimilation of this group (*cf.* Karsten, *op. cit.*, p. 17; Gutheim, *op. cit.*, p. 11). It was a comparatively early process, and is found in all the Romance languages, a fact which at once shows that it was earlier than the loss of the ultima in French. Until the assimilation was completed, the final syllable would be retained, at least as a vowel-glide following the explosion of the *t*. This as-

similatory process was completed early in Vulgar Latin; the date is fixed by Schuchardt between 100 and 300 A. D. (*Vocalismus*, I, 104.) Examples from the inscriptions are *ottimo*, *setemb.* (Solothurn, 219 A. D.)

The group *mpt*, like the corresponding combination *nct*, show no retention of the final syllable. The assimilation and outfall of the middle consonant must have been completed before the final weakening of the ultima; thus *promptus*: *pront*, **rumpitus*: *ront*.

Mute + Spirant.

The group *cs* (*x*) always began a syllable, as the spelling of the inscriptions, **A.XIS**, etc. shows. In French an assimilation of the same nature as for *ct* has occurred. Both the consonants were palatalized; then the *c* was assimilated to the *s* and a parasitic *i* was developed. Inscriptions with *s* for *x* occur very early, before 100 A. D., according to Schuchardt (*Vocalis*, I, 104. cf. also Lindsay, *op. cit.*, 108). There is no doubt that the process was completed early in French; and as a result the final vowel falls as it does after a single consonant. Examples: *axem* : *ais*, *būxus* : *bois*, *sex* : *sis*, *traxi* : *trais*, etc.

For the group *est*, the only example seems to be *sēxtus* : *sistes*; also *bis-sextus* : *bissétre*. The last is obviously borrowed. For *sistes* we should expect **sists* : **sitz*. The assimilation of *c* before *s* must have been at least as early as for intervocal *cs*; and the group *st* would remain, after which the final vowel falls regularly. Possibly *sistes* is explained by a levelling to the dissyllabic form of the other ordinals, like *disme*, *nuefme*, *setme*. (cf. the relation between *faimes* and *faites*, *dimes* and *dites*, etc.)

The group *ncs*, like *nct*, is assimilated to *n's'*, after which the ultima falls as it does after original *ns*. Examples only in the perfects of verbs in *ngere*, *cinxi* : *ceins*, *ünxi* : *oins*, *fünxi* : *feins*, *tünxi* : *teins*, etc.

Labial + s.

Like *pt*, this group shows assimilation in all Romance languages except Roumanian; *isse* for *ipse*, was already a feature of the colloquial pronunciation of Latin, and examples of *ss* for *ps* are found on the inscriptions. (See Schuchardt, *Vocalismus*, I, 148.) The final vowel is never retained after it in French. Examples are not numerous. **volvsi* : *vols*, *scripsi* : *escris*,

**solv-si*: *sols*, **excarpsum* (for *excarptum*): *eschars*, and compounds of *ipse*, like *nec-ipse*: *neis*; *ad id ipsum*: *ades inter hoc ipsum*: *entrues*, etc., *gypsum* (Gk. *γύψον*); O. F. *gif gipse* is a loan-word.

For the group *mps*, which is treated, so far as the final vowel is concerned, exactly like *ncs*, the sole example seems to be **readempsi*: *raens*.

Mute + r.

I have already considered to some extent the history of these groups. The apparent preservation of the ultima was due to the vowel-like character of the liquid; and it seems to me probable that the orthograph *re* in O. Fr. was but a sign for sonant *r*. The fact that after the final assimilation of the dental mute (which occurred in the eleventh century, long after the loss of the original final vowels) final *e* is retained, seems to contradict this theory. But this might happen through the preservation of the dissyllabic character of the word, the peculiar period for the reduction of unaccented syllables being past. Then from the voice of the *r* an indefinite vowel sound could be easily developed. This process occurs frequently with prot tonic *r* and is common in all languages. It took place in the preliterary period in Latin itself, in the final syllables of *ri* and *ro* stems. Compare, for instance, Gk. *ἀγρός*: Sanskr. *ajras* with Lat. *ager*: to explain the latter, the following development has been assumed —**agros*: **agrs*: **agr*: *ager*, with a “svarathaktic” vowel developed from the voice of the *r*. The development of Fr. *pere* was probably parallel to this; *pa-trem*: *pe-dr*: *pe-dre*: *pe-re*: (or possibly *pe-dr*: *pe-rr*: *pe-re*). The question is not of very much importance, because at every stage of the language an indefinite vowel could be developed from the voice of the *r* under the influence of slightly greater stress.

Of value as proving the theory presented above are the words with original final *r*. A great number of these is preserved in French.

super: *sore*, *marmor*: *marbre*, *inter*: *entre*, *minor*: *moindre*, **melor*: *mieldre*, *major*: *maire*, *calor*: *chalre*, *semper*: *sempre*, *tūrtur*: *tortre*, *robur*: *rouvre*, *fūlgor*: *foldre*, *pējor*: *pire*, and all nominatives in or of the third declension, like *antecessor*: *ances-tre*, **custor*: *costre*, **tropator*: *trouvere*, etc.

The explanation of Schwan, that all these underwent early metathesis of *r*, as in Ital., *quattro, sempre*, will hardly suffice. Metathesis is a process which is essentially sporadic, and has not the fixed and constant character of a phonetic law, which the development of these forms indicates. It rests essentially on mispronunciation and generally affects but a few words. (*cf.* Paul. *Principien der Sprachgeschichte*, II, 59.) The view that this development is due to a real loss of the original final vowel, with the *r* then assuming its place as the syllabic, seems at once simpler and more in accord with the general tendencies of the language.

Examples for dental + *r* are very numerous. I give only a few: *aratrum* : *arere*, *Petrum* : *Pierre*, *fratrem* : *frere*; *iter* : *oire*, etc. After another consonant, *inter* : *entre*; *capistrum* : *chevestre*; *dextrum* : *destre*, *feretrum* : *fertre*, **pinctor*: *peintre*, *quattuor*: *catre*, *turtur* : *tortre*. For *dr*, *quadrum* : *querre*.

Interesting is one exception, due to the action of "Satz-phonetic;" *rētro* shows double forms, *riere* : *rier*, (Ogier); also its compounds *arrière* : *arrier*, (Jean Bodel); *dederriere*: *dederrier*, (Artur). The shorter form is undoubtedly developed in the position before vowels; *cf.* the doublets *or* : *ores*, and *super*: *sore* : *sor*.

Godefroy also gives one example of *petrum*; *pierre*, usually, but *pier* "monnaie à l'éffigie de St. Pierre" from a chart of Liege, 1249. This is so exceptional that it must be ascribed to the neglect of the scribe.

Further, the pronouns *nostros*; *nos*, *vostros*; *vos* represent the shorter protonic development of *str* in proclisis. They have suffered very heavy reduction.

Guttural + r. *cr* is not a common group in Latin in final syllables. Examples are *acrem*: *aigre*, *alácrem*; *aliegre*, *macrem*: *maigre*. All seem to be loan-words. We should expect complete assimilation of *c*, with production of parasitic *i*, as in proparoxytones like *facere*: *faire*. The development of the final syllable is regular. *lucrum*: *lucre*, *lavacrem*: *lavacre*, etc., are entirely of learned origin. O. Fr. *gieres* : *giers*: *gier*, has been variously explained, as from *de hac re* (Suchier, *Ztschr., f. r. p.* I, 431) or from *igitur*, (Cornu in *Rom.*, X, 399). Its etymology is so doubtful, that it can hardly be made the subject of any dis-

cussion. It shows, however, the double forms already frequently noticed with adverbs.

gr. First, examples—*agrūm*: *aire*; *nīgrūm*: *noir*, **flagrūm*: *flair*, *intégrūm*: *entir*. Schwan, going out from these examples, proposes the law that primary *gr* demands no “Stützvocal.” But *noir* and *entir* are adjectives, and may be explained as newly formed masculines, due to the analogy of adjectives with a separate form for masculine and feminine. *flair* is undoubtedly a past-verbal derivative of *flairer* (*cf.* Meyer-Lubke, *Rom. Gr.*, II, 445). There remains the substantive *aire*, which has always final *e*; and is, moreover, of masculine gender. As there can be no ground for assuming analogical influence in this case, *aire* may be accepted as exhibiting the normal development of *gr*, which then harmonizes with the other groups with mute + *r*.

aegrem: *heingre*, *podagrum*: *pouagre*, are loan-words.

Labial+r. A common group in Latin. The mute is reduced to the spirant *r*, and *r* remains as the syllabic. Examples.—*fabrum*: *fevre*, *robur*: *rouvre*, *coprum*: *cuevre*, *super*: *sore*, etc. After other consonants, *arbor*: *arbre*, *semper*: *sem̄pre*, *scalprum*: *eschalpre*, *sulfur*: *solfre*, etc.; *bl* has been substituted for *br* in *acer arbor*: *erable*; *cribrum*: *crible*. Exceptions.—The preposition *super* shows a triple development: *sore*: *sore*: *sor* (N. Fr. *sur*). The last is undoubtedly the unaccented proclitic antevocalic form of the word. The earliest examples occur in the Passion Christi: see Karsten, *op. cit.*, where this development is worked out in detail.

Some new *r*-groups arise through the fall of the ultima-vowel before final *r*. Such are *l-r*, **mēlor*: *mieldre*, *calor*: *chalre*, *nugaliōr*: *nuadre* (Aiol). Of the two sonants, *r* possesses the greater sonority, so that the synthesis could not be effected without a perceptible glide. Hence we find the development of the glide-consonant *d* in most dialects, and everywhere the retention of the *r* in its full syllabic quality. The same occurs in the group *lg-r*, *fūlγur*: *foldre*, with assimilation of the *g* on the dental environment.

A similar treatment is experienced by the groups *n-r*, *nd-r*, *s-r*, *m-r*, *minor*: *moindre*, *sēnior*: *seindre*, **jūvenior*: *joindre*, *grandior*: *graindre*, *antecessor*: *ancestre*, *marmor*: *marbre*.

The group *j: r* presents a difficulty. Examples are *p̄ejor*: *pire*, *m̄ajor*: *maire*, *s̄(n)ior*: *sire*, *vismajor*: *vimaire*.

The pronunciation of *j* in the earlier period of Latin was that of a semi-vowel *i*. If *j* preserved this sound, there would be no reason for the retention of the final syllable as such; as *i* possesses more sonority than *r*, the latter would preserve its consonantal character after the outfall of the final vowel. But in the Vulgar Latin of the imperial period, a shifting in the articulation of *j* took place. It became a sibilant spirant (*cf.* Lindsay, p. 46); this took place undoubtedly before the Gallic vowel-reduction. When, then, this occurred, the *r* after the shifted *j* would assert its value as a sonant, and would serve as syllabic of the ultima. The reduction of *j* to "parasitic" *i* must have occurred after this. Had it occurred earlier, and the diphthong *ai* been already formed, there would have been no cause for the retention of *r* in its sonant function. The orthography in Provençal *májer*, confirms this hypothesis.

Group *r—r*. It occurs only in the word *s̄oror*: *suer*. The final vowel falls and the two *r*'s are reduced. This development is noteworthy for the sake of comparison with the corresponding secondary group, as in *cūrrere*.

mute + l.

Groups of this nature were not common in Latin final syllables. Only *pl* seems to occur. It shows the same development as *pr*, except that *p* is only reduced to *b*; *l* remains as the syllabic of the ultima. *dūplum*: *doble*, *triplem*: *treble*. After a consonant, *pl* naturally remains. *exemplum*: *essemple*, *templum*: *temple*.

A new group *m-l* is formed in *insimul*: *ensemble*. Here the *l* being of greater sonority than *m*, retains its syllabic function; and a glide-consonant *b* is developed. But how are the by-forms *ensenes*, *insiame* to be explained? (*cf.* Ital. *insieme*, Prov. *ensems*). If we may assume for *insimul* + adverbial *s* a proclitic position, with rapid pronunciation in the stress group, then we have here a pendant to the development of *nostros*: *nos*; *l* was lost in a group of four consonants, where it could not retain its syllabic character, owing to the atonic position of the whole complex.

mute + nasal.

The group *gm* seems to occur only in words with final *a*.

gn.—This group was pronounced in Latin with the guttural nasal *ggn* (see Brugmann: *Grundriss*, I, 54). It differs from all other combinations with a final sonant in that the final syllable is never retained after it. The assimilation of the two consonants is reciprocal, the end result being palatal *ñ* with complete loosing of the *g*-stop (*cf.* Gutheim: *op. cit.*, p. 6, ff.). This process must have been completed before the final reduction of the ultima. It occurs in all the Romance languages, so that it must have occurred comparatively early.

signum: sin, dignum: din, signum: seing, lignum: lin (cited by Godefr. from G. de Marchant). *pugnum: poing, *praegnus: prains, permagnus: parmaing, regnum: ren, stagnum: estaing, malignum: malin.*

In loan words the ultima is retained, although the palatal *ñ* is also produced, as in *magnum: magne, agnum: aigne, cygnum: cygne, dignum: digne*.

Therefore, the assumption of Willenberg (*Rom. Stud.*, III, 373), that the subjunctive forms which show final *e* after this group are regular, is inadmissible, notwithstanding the early date of some of them, *degnet*, Eulal. 26, *regne*, Rois, 58. These can only be analogical forms; *enseint* (Brändan, 129) shows the regular development.

Sonant + sonant.

Groups *rm*, *rn*. After these the final vowel is lost. *r* is much more sonorous than *m*, and hence the transition was effected without a break in the expiratory current; *r* in this position probably formed a close diphthongic union with the stem-vowel, *armum: arm, vermen: verm, firmus: fers*. The form *verme* (Jonas, 14), Koschwitz (*Commentar*, p. 132) explains as a levelling to words like *terme, charme*, where the retention of the final syllable is regular. *germen: N. Fr. germe* is most probably a loan-word. For *rn*, *albürnnum: alborn, cornu: corn. fürnum: forn, hibérnus: ivèrn, diürnum: jorn: *quaternum, caern*. Exceptions like *alborne* and *viburnu: viorne*, are new feminine formations. The following are loan-words: *externum: esterne, modernum: moderne, òrnus: orne*. The etymology of *sorne*

(possibly *saturnum*, cf. Korting: *Lat. Rom. Wörterbuch*) is doubtful.

The assumption of Willenberg (*l. c.*, p. 375) that these groups *rm*, *rn*, demand "euphonic" *e* is therefore unjustified, as his own examples *retor*, *atour*, show.

lm. This group apparently demands a "stütz-vocal."

Examples.—*culmen*: *colme*, *scalmum*: *eschalme*, *psalmum*: *salme*, *ülmum*: *orne*, *helmu*: *helme*, **calmis* ("lande," cf. Thomas: *op. cit.*, p. 8): *chalme*. The two consonants are not homorganic, but as *l* possesses more sonority than *m*, the group is pronounceable at the end of a syllable. Meyer-Lübke (*Rom. Gr.*, I, 251) assumes that before the loss of the ultima *alm* had become *aulm*; in this group *l* could only function as a consonant, and the nasal became sonant in character, *aul^m*; though according to the law proposed by Meyer-Lübke, the final vowel was retained as in all proparoxytones. But is the stage *aulm* possible? The vocalization of the *l* before consonants consists in the gradual loosing of the obstruction formed by the articulation of the point of the tongue, while the position is retained (cf. Meyer-Lübke, I, 403); how then can a parasitic *u*-element be formed before the *l*, and this retain its character as consonant? Cannot the development be explained by the peculiar nature of the Latin *l*? This sound was, as we know now, "guttural," that is, pronounced with a well-marked off-glide. (cf. Lindsay, p. 90. Osthoff, *Dunkles und Helles l im Latein*, in *Transactions of the Amer. Phil. Assoc.*, XXIV, 50.) If this off-glide became more distinct then the syllabic union between *l* and *m*' would be broken, and *m* become syllabic. This explanation harmonizes to a certain extent with that of Meyer-Lübke, who also assumes the development of a "Neben-silbe" between *l* and *m*. (Here I may call attention to the fact that in American-English dialects this group likewise loses its monosyllabic character; and a syllable is developed from the voice of the *m*. Thus *elm* is pronounced *el-m* "ellum" with two very distinct syllables.)

Exactly the same process holds good for *ln*, in *alnum*: *alne*. In *ball(i)num*, *l* was already lost in Vulg. Lat. (cf. Ital. *bugno*, Sp. *baño*, Prov. *banh*).

mn. This group differs from most of those hitherto consid-

ered in that it shows progressive assimilation ; the end-result is *m*. Owing to the complete closure of the mouth-passage, in forming the *m*, the transition to the *n*-position cannot be effected without a perceptible glide. Therefore, if the assimilation was late, the retention of the final syllable, as *m*, is to be expected. Here, however, a considerable variation is found. *damnū* : *dame* and *dam*, *sommū* : *somme*, and *som* (*Epistles of St. Bernard*). *scannū* : *eschame*, *solemnis* : *solemes*, *Interamnes* : *Entrames*. Loan words are, *autumnus* : *automne*, *dictannū* : *dictame* (O. Fr. *ditain* : *ditaim*, which indicates apparently a Vulgar Latin **dictamus*) : *solemnem* : *solemne*, etc. Meyer-Lübke assumes the forms with *e* as showing the regular development, explains *dam* as a verbal substantive. (cf. Meyer-Lübke, *Die Strassburger Eide und das gallische Anslautsgesetz*, *Ztschr. f. Rom. Phil.*, XII, 520. G. Paris, *Romania*, XVIII, 520. Koschwitz, *Commentar*, p. 9). The chief question is as to the date of the assimilation. If it were completed when the law for the ultima went into effect, there would be no cause for a preservation of the final syllable. Pompeius, grammarian of the fifth century, mentions *colunna* as a barbarism (Lindsay, p. 69), but on the other hand, spellings like *mpn* in the inscriptions do not favor the hypothesis of early assimilation. If this process was completed late, then the retention of the final syllable may be explained; consonantal *m* + *n* cannot be pronounced together without one of them assuming a sonantal character. The by-forms *dam* and *som* (Meyer-Lübke's theory is inadmissible for *som*) must then represent in some way sentence-doublets, they are probably ante-vocalic forms; *damme* + *voc* : >**damn* >*dam* but *damnu* + *cons*. >*amn* >*ddame*; that the longer form is more common is due to the greater prevalence of initial consonants. The same variation is found with the secondary group *m*, *n*.

m + consonant *u*. The only example of this group, outside of verb-forms, seems to be the adjective *tenuem*, which appears in O. Fr. as *tenve*, *tanve*, *teneve*, *tenvre*. Hiatus *u* after nasals remains in Fr. as *v*, cf. *Januarius* : *Jenvier*, *annualem* : *anvel*.

The *u* lost syllabic value early in Vulgar Latin (see Lindsay, p. 52), and was reduced to a consonantal *w'* sound; the exact nature of the sound at the period of the weakening of the ultima

is doubtful. If it had already become spirant *v*, the total loss of the final syllable would be probable. If, on the other hand, the pronunciation was still *tenue*, with *u* as a semivowel, then the ultima would probably be preserved, as *u* is more sonorous than *n*. The latter supposition seems more probable. It is, however, seemingly contradicted by the forms of the *ui*-perfects, *tenuit* : *tint* ; *venuit* : *vint*; analogy has played so great a part in their development that it is perhaps better to accept the adjective *tenuis* as showing the phonetic law. For place-names with similar development to *tenve*; see Lindstrom, *op. cit.*, 56.

Apart from the *ui*-perfects, the only other words with consonant + *u* final are *viduum* : *veuf*, and *antiquum* : *autif*. The imperfects with mute + *u* all show assimilation of the mute, and subsequent union of *u* with the stem-vowel, with loss of the ultima. Cf. *habui*, Picard *au*, *placui* : *plau*, *debui* : *dui*, *potui* : *pou*, etc. These represent undoubtedly the regular ante-consonantal development, and indicate that the assimilation was completed early; *veuf* and *autif*, with *u* preserved as *f*, are levelled to the form of the feminine.

Consonant + hiatus—*i*. The reduction of *i* in hiatus to consonant *y*, with loss of syllabic value, took place very early in Vulg. Latin; already in Plantus the ending *ius*, *iu*, is counted as only one syllable. This consonant *y* then generally palatalized the preceding consonant, and was itself lost. (cf. for all these groups, Waldner: *Die Quellen des parasitischen i im Französischen*. Herrig's Archiv., XXVIII, 453 ff. Meyer-Lübke, Gr., I, 423 ff.) I am here concerned only with the fate of the final vowel. Till the palatalization of the preceding consonant was completed, and the *y* sound absorbed, the final syllable must have been retained, as *y* is of greater sonority than any of the consonants; after this process was ended, then the reduction of the final syllable could occur as after a simple consonant. We find in general a complete loss of the ultima after these groups, indication that the palatalization was early completed. In loan-words, on the other hand, the ultima is always retained; and the hiatus *i* appears as *g* (= *dzh*), or is "attracted" and united with the stem-vowel.

Dental + 'y. The popular development of this group is indicated by the following examples: *ty* becomes *is*, *dy* is reduced to

parasitic *y*, both with loss of the following final vowel : **poteo* : *puis*, *palatum* : *palais*, *pr̄etium* : *pris*, **r̄etium* : *rois*, *radium* : *rai*, *mōdium* : *mui*, *mēdium* : *mi*, etc.

In loan-words the ultima is retained ; *ty* is reduced to voiceless *s*, without the development of parasitic *i*. *servitium* : *service*, *hos-pitum* : *hospice*, **mūtium* : *mousse*, *justitium* : *justice*, also *justis*, (regular), *arbuteum* : *arbousse*, *capitium* : *chevece*, *vītium* : *vice*. cf. Cohn, *Suffixwandr.*, p. 37 ff. *avisstruthio*, *autruche* : O. F. *austruce*, must also be a loan-word. *dy* in loan-words sometimes shows a change to *r*, with retention of the ultima. *homicidium* : *homocire*, *Aegidium* : *Girrēs*, *remedium* : *remire*, *studium* : *estuire*. cf. Meyer-Lübke, *Gr.*, I, 432, 487. Sometimes also *l*, *homicidium* : *homēcile*, *aegidium* : *Gilles*, *invidia* : *envilie*.

Lastly *dy* sometimes gives *dz* (*g*), *podium* : *poge*, *gladium* : *glage*, also *glai*, regular, and *glaive*, a remarkable form, certainly not popular.

After other consonants, *ty* undergoes assimilation (on the earliest Vulg. Latin forms, see Lindsay, p. 83). So far as the final vowel is concerned, its treatment is exactly similar to that of consonant + original *s*. It always falls. *nty*, *nuntius* : *noinz*, (N. Fr. *nonce* is an Ital. loan-word, see Littré.) **antius* : *ainz*; *rty*, *tertius* : *tierz*, *martius* : *marz*; *cty*, *ductium* : *dois*; *st̄z*, **postiu* : *puis*, *ostium* : *uis*, also *uisse*, *supra*, p. 7. cf. further the subjunctives *esteez*, *esforz*, quoted by Willenberg : *loc. cit.*, p. 377. He believes that “assibiliertes” *c* demands euphonic *e*, and quotes the early form *announce*. *Cam. Ps.*, 105 : 5, as proof. But this view is not borne out by the substantives cited above.

One group of words show an apparent exception to this law : the ultima is retained. They are seemingly nominatives of the third declension, which have been preserved contrary to the general tendency. cf. Suchier in Gröber's *Grundriss*, I, 638. *captio* : *chace*, *destructio* : *destruce*, **tractio* : *trace*, *buteo* : *buse*, *datio* : *dace*. Of these *dace* and *buse*, are undoubtedly borrowed ; the others are explained by Meyer-Lübke, *Gr.*, II, 445, as post-verbal substantives.

Examples of *dy* after consonant are very rare ; *hordeum* : *orge*, **thelandium* : *chalande* : *chalandre*. *Compendium* : *Compiègne*.

Of these, *orge* may represent a popular development. We know that *dy* was assilated like *ty* in Vulg. Lat., and in late inscrip-

tions *z* was often chosen to express this sound. (*cf.* Seelmann : *Aussprache*, p. 323) ; this could indicate equally a sound *dzh*. In this case, after the double consonant, *di* was not reduced to parasitic *i*, like intervocal *di*, but was developed like initial *di*. Since the final vowel is retained, there must have been complete closure in articulating the *d*, then followed the explosion, and the articulation of the sibilant, succeeded by a weak vowel sound, as the syllabic **ordzhe*. But the word may also represent an original feminine (neuter plural) *hordea* ; the gender is prevailingly masculine in O. Fr. *chalande* and *Compiègne* are probably not popular words.

For *sy* examples are rare ; they show loss of the final. *segūsium* : *seūs*, *basio* : *bais*.

Guttural + *y*. *ci* gives regularly *ts* (*z*) in O. Fr. *gy*, a parasitic *i*. After both the vowel of the ultima is lost. Examples : *facio* : *faz* : *fais*; *laqueum* : *laz*, *bracchium* : *braz*; *panicum* : *paniz*; *glaciem* : *glaz*; *solācium* *solaz*, etc.

Exceptions are quite numerous. All must be classed as loan-words. *delicius* : *delices*, *fabricium* : *fabrice*, *licium* : *lisse*, *judicium* : *juise*, (also *juiz*, regular); *arcaceum* : *arcasse*, *bisaccium* : *besace*, *pellicium* : *pelisse*, *convicium* : *convice*, *vinaceum* : *vinasse*. Others show *ch* (= *tsh*) ; they are probably loan-words from Italian. **posticum* : *postiche*, **pisaceum* : *pisache*, **spinaceum* : *espinoche*. *gy*; popular words are : *exagium* : *essai*, *refugium* : *refui*. In loan-words, *gy* generally produces *dzh(g)*, with retention of the ultima. **disfugium* : *deffuge*, *horologium* : *horloge*, *refugium* : *refuge*, *elogium* : *elope*; *navigium* : *navire*, shows a change similar to that of *dy*.

After other consonants *ci* and *gi* are treated analogously ; the ultima is not retained. *trūnceum* : *trons*, **romancium* : *romanz*, (*cf.* Meyer-Lübke, I, 252), **barchio* : *bars*, *longius* : *loins*, *nēcius* : *nice*, is surprising ; we should except **nis*. It may be a generalized feminine form.

Whether *Georgium* : *Jorge* is a popular form, indicating a retention of the ultima after *rgy*, as in *orge*, is, in the lack of other examples, difficult to decide. It may be a Greek-loan word.

Labial + hiatus *i*. This is the most difficult of these groups. Schwan (*Afr. Gr.*, p. 88) accepts the theory of a

double development, (1) *py, by* > parasitic *i*, which fuses with the stem-vowel; (2) *py, by* > *tsh, dzh* (*ch, z*).

The last is certainly regular before final *a*. Before other vowels we find, on the one hand, *sapio* : *sai*, *dēbeo* : *doi*, *habeo* : *ai*, **quadrūvium* : *caroi* (also *caroge*); and on the other *propius* : *proche*, *apium* : *ache*, *rubeum* : *rouge*, **sabium* : *sage* (also *savie* : *saive*, borrowed). *rabiem* : *rage*, *trivium* : *trege*, *niveum* : *neige*, *vīdūvium* : *veouge*, *alveum* : *alge*, *dilūvium* : *deluge*, *lēvium* : *liege*.

Of these, *ache*, *rage*, *neige*, *alge*, are feminines, and may go back to Vulg. Lat. feminine forms with final *a*.

Proche, *rouge*, *sage* are adjectives, and may show levelling to the feminine, a fact frequently observed. *deluge* is a loan-word, as *ü* > *u* shows. Their remain *trége*, *rouge*, and *liege*, which are masculine substantives. The etymon of *trege* is somewhat doubtful. Schuchardt (*Ztschr. Rom. Phil.*, IV, 125) proposes a Keltic origin. *Liege* is irregular in its stem-vowel, which may, however, be due to the analogy of *lēvat* : *liève*.

All things considered, I believe, with Waldner, that *sai*, *ai*, represent the genuine popular development of this group. These show an assimilation of the consonant before *y* after which the ultima falls. If, however, the forms with *g*, *ch*, are popular, the retention of the final syllable shows that the assimilation of *p*, *b* before *y*, which had become a blade-point spirant, *sh*, *zh*, was completed late.

The following are undoubtedly loan words : **flovium* : *fluive* : *fleuve*, **avium* : *aive*, *ingluviem* : *englrieve*.

Sonant + hiatus *i*. *ly* produces a palatalized *l*, after which the ultima is not retained, as the assimilation probably was one of the earliest. Examples : *allium* : *ail*, *fōlium* : *fueil*, *consilium* : *conseil*, *exilium* : *eissil*, etc. Willenberg again puts *l* as one of the consonants which call forth "stütz-e." But his examples (*consoilles*, etc.) are certainly analogical. cf the organic conjunctive forms cited by him (p. 381). *merreilt*, *Ox. Ps.*, 120-3; *consaut* Ogier, 12442.

Exceptions generally show the pure lingual *l*, with retention of the final syllable; they are all loan words : **solum* : *suele* (beside *sueil*, regular), *pallium* : *pálie*, *nobilium* : *nobile*.

Meyer-Lübke (*Gr.*, p. 252) counts pal. *l* as one of those sounds after which final vowels persist, through retention of the

vocalic character of the *i*. Elsewhere, p. 439, he cites *paile* and *uile* as loan-words. O. Fr. *uil*, masculine, is also found.

Occasionally in loan words we find a change of *l* to *r*. *concilium* : *concire*, *evangelium* : *evangire*, *trifolium* : *triforie*, etc. A sound-substitution of this nature speaks for the non-popular character of these words.

n + y; This group produces early palatal *ñ* after which the final vowel falls. *coneum* : *coing*, *jūnium* : *juin*, *scrinum* : *esclin*, *ingēnum* : *engin*, etc. Loan-words frequently show the sound *dzh* after *n*, as a result of the reduction of hiatus *i* to a consonant, without assimilation of the *n*. The ultima naturally persists in these, *extraneum* : *estrangle*, *lineum* : *linge*, *laneum* : *lange*. Others show dental *n*, without palatalization. *progeniem* : *progene*, *idoneum* : *idonie* : *aoine*, *dominium* : *demeine*, *capitaneum* : *chevetaine*, *preconium* : *preone*, etc.

r + hiatus i. This group shows likewise loss of the final syllable after it, with early "absorption" of the hiatus *i*. *varium* : *vair*, *imperium* : *empir*, *cōrium* : *cuir*, *dormitorium* : *dortoir*. Loan-words again may be divided into two groups: those in which the hiatus *i* is retained as *g*; and those where it is attracted. In both the final is retained: **excoreum* : *escorge*(cf. *cuir*), *sororium* : *serorge*, *cireum* : *cierge*, *salhorreum* : *salorge*, *eboreum* : *ivōrie* : *ivoire*, *ciboreum* : *cibōrie*, (mar)**moreum* : *moire*, *magisterium* : *maestire*; also, *maesteyr* (Alexander- fragment), which may be regular. Further *monastire*, *battistire*, *avoltire*, **burrium* : *buire*, *empire* beside *empir*, etc., etc.

m + hiatus i. The only example of this group, apart from those words which have ultima *a* (*vendange*, *losange*, etc.) is *simium* : *singe*. The Romance cognates, Prov. *sinja*, Ital. *scimmia*, Sp. *jimia*, indicate a feminine etymon **simia*, but the word is masculine in New French. *Singe* shows that the hiatus *i* became a spirant *zh*; so long as the *m* preserved its labial articulation before this, a monosyllabic pronunciation without a "neben-silbe" would be impossible. The date of the assimilatory process by which *m>n* is unknown; if it took place after the reduction of the final syllable, the dissyllabic form is explained. A similar result appears in the group *mny*, with only one example *sonnium* : *songe*. The possibility of analogical influence by the verb *songer* is present in this case, so that it is difficult to decide if the retention of the final syllable is completely regular.

PART II.

The Unaccented Vowels in Proparoxytones.

The vowel of the penultimate syllable of proparoxytones in Latin is always *i* or *u*; *a* appears only in Greek loan-words, *mouāchus*, *pampānus*, *orphānus*, *calāmus*, *Lazārus*, etc. From the earliest period of the language a tendency toward syncope is observed. We find, for instance, *domnus*, *ardus* in Plantus, *as-pris* in Vergil: *Aeneid*, II, 374, *soldus* in the *Lex municipalia* of Cæsar. (For other early examples see Lindsay, p. 184, ff.) In the vulgar speech this tendency was much more marked and extensive. It probably was at all times a peculiarity of the ruder, uncultivated language spoken by the people. Under the empire, shorter forms are mentioned more and more frequently by the grammarians, and the appendix. Probe has a long list of such syncopated proparoxytones. Schuchardt's list of examples from the inscriptions (*Vocalismus*, II, 403 ff.) shows that the words most commonly syncopated were those with a liquid or nasal in the penult or ultima. Most common is the syncope in the case of the suffix—*culus*, of which Schuchardt gives no less than 27 examples. It is questionable, however, whether the longer forms of this suffix ever really belonged to the popular language. In this the middle vowel *u* is unoriginal, being developed in classical Latin from the voice of the *l*. It represents the Indo-European suffix—*tlo*. (cf. Lindsay, 146, 302.) Plantus generally has the shorter paroxytonic form. Apart from these combinations with liquids or nasals, the only examples given by Schuchardt are those with the secondary groups *b-t*, *grabtas*, *c-t*, *filicter*, *g-t*, *dictus*, *g-d*, *frigdo*, *s-t*, *postum* (cf. pp. 143, 144). Whether all these indicate a real syncope for the earlier period, or how far they are due to mistakes of the stone-masons, it is impossible to determine.

To explain these syncopated forms, various attempts have been made. Stolz (*Indg. Forschungen*, IV, 234), following von Planta (*Grammatik der oskisch-umbrischen Sprache*) connects it with the quantity of the final syllable. If this is short, the penultima vowel is preserved; if long, then syncope occurs. For example: *calidus*; *calidum*, from original *caledōs*, *caledōm*, but

caldo, caldi, from original *caledōd, caledī*. Then *caldus* by analogy. Osthoff (Wölflinn's *Archiv*, IV, 355 ff.), on the other hand explains the shorter forms as "Schnellsprechformen," that is, they are the natural reductions which we observe in the ordinary rapid speech of every day. When we articulate rapidly, there is always a tendency to slur or drop entirely the unaccented shorter syllables. This explanation is accepted also by Soemsen (*Studien zur lateinischen Lautgeschichte*, p. 159 ff.) and by Skutsch, (*Forschungen zur lateinischen Grammatik und Metrik*, pp. 47, ff. 57).

In French, this tendency is carried out to its legitimate conclusion. All penultimate vowels fall, even *a*. Just when this process was completed, it is impossible to say, but probably very early in the history of Gallic Vulgar Latin. It was before the dialectic separation from Provençal, as it occurs also in the latter.

First to be considered is a group of words which show apparently a total loss of the final syllable. These have been last discussed by Horning (*Ztschr. f. Rom. Phil.*, XV, 493 ff.), who gives a long list of such examples, especially from the eastern dialects. In addition to the examples given by Horning, I may cite the following: in *īcus, apostolicus: apostolie* (Alex, 61): *apostole, arsenicum: arsoinc*, (d'Aubigne in God.), *basilicum: basile*, (Vie de Ste. Christine in God.). cf. *basoche, magicum: mage*: *maige* (Wace), *remedicum: remire* (Benoit), *umbilicum: omble*, *persicum: perse* : *pierse* (Ph. Mousqué), *rusticus: ruste* : *ruistre*. **exmanicum: esmain* (cited by Godef. from a chart of 1565). cf. *manche*. *dalmaticum: dalmaire* (Dial. St. Greg. in Godef.) cf. *dalmage*. *artem magicum: artemaire* cf. *artemage*. *grammaticum: grammaire*. In *īcem, lubricem: lubre, simplicem: simple*, *codicem: code, imbricem: limbre, sardonycem: sardoine*.

Further we find *verginem: virgene: verge, *antiphona: antefie: anteife* (Trad. de Belet. in Godef.). cf. *antiennes, marginem: marge*, *organum: orgue, turbinem: trombe, tympanum: timbe: timbre, canonem: cane, *arganum: argue, imaginem: imagene: image*, *Carthaginem: Cartage, cophinus: coffe* (cited by Godef. from a text of 1472): *coffre, supplicem: souple, pallidum: pale, aspidem: aspe, mucidus: mucre, pecudem: peque: pec, rancidus: rance, salmacidus: salmache, senopida: sinople, *diaspidem: diaspre, consolida: consire*

(*Oliv. de Soir.* in Godef.), cf. *solde*, **ruvidum* : *rove*, *flaxidus* : *flasque*, *expavidus* : *espave*, *magida* : *maie* : *mire* ; (cf. *maide*), *cupidus* : *cove*, *sapidus* : *sape* (cf. *sade*), **digita* : *doie* (cf. *doit*), **aboculus* : *avucge* (cf. *avuele*, *aveugle*), *scandalum* : *eschande* (cf. *eschandle*), *fragilem* : *frage* (cited by Godef. from D. Anton Chroniq.), (cf. *fraele*), *mugilem* : *muge* (Baïf. in Godef.), *pagina* : *pagene* : *page*, *vasculum* : *flasche* (?), **situlum* : *set* (Renart in Godef.): *sete* (cf. *seille*), *scedula* : *cede* (cited by Godef. from a text of 1530), **beryculus* : *berique*, **amandola* : *amande*, *angelum*: *angele*: *ange*, *clavocymbalum* : *clavecins*, *cicerem* : *cese* (cited by Godef. from *B. de Gord. Pratiq.*), cf. *ceire*), *cancerem* : *cranche* (Mire de St. Eloi in Godef.), *borboros*: *bourbe*, *dactylus*: *da tte*, *colera* : *cole* (Anc. Th. frc. in Godef.), (cf. *colre*, *cholère*), *passarem* : *passe* (cf. *paistre*), **cercita* : *sarce* (?), *semita* : *sem* (cf. *sente*), *spiritum* : *espir* (cf. *esperit*), *subitum* : *sups* (cited by Ste. Pallaye from a text of 1373), cf. *soude*, *principem*: *prince*.

Horning considers these forms, at least so far as concerns those in *icus*, *idus*, as genuinely popular, remnants of a very early period in the history of the language. He believes that for Eastern dialects the syncope has occurred in every case, and that the final forms are the results of various processes of assimilation. In *icus* the *c* was reduced through *g* to *y*, then syncope took place, after which *y* disappeared without affecting the preceding consonants. For the other words, in *idus*, cited by him, he proposes various possibilities, into which I cannot enter more nearly.

Meyer-Lübke, with the exception of a few words with *a* in the penult, like *monachus* : *moine*, *fecatum* : *foie*, *anatem* : *ane*, (*Gr.*, I, 262, 447), or with *g* as the initial consonant, *doie* (448), classified these as learned formations. Neumann : (*Ztschr. f. Rom. Phil.*, XIV, 550), puts them all in the latter category. I believe that the last is the true explanation of these remarkable forms. We find by the side of nearly all other forms which show the regular development with syncope and subsequent consonant assimilation. To assume with Horning that these forms are popular, is to assume two or more developments of one and the same sound group, an assumption which can be accepted only when the relations of "Satz-Phonetik" come into play, an assumption not considered by him. At least for the central dia-

lect from which the literary language developed, such forms can only be considered as abnormal and non-popular. How far dialectal differences may occur, it is impossible to say. I do not understand from Horning's essay that these words represent the sole forms under which the proparoxytone endings appear in the Eastern dialects; if such be the case, then we have here a real instance of dialectal differentiation. For central French, however, this possibility is excluded; and the assumption that they are words of late and learned origin seems justified. Proparoxytones are unknown to the language, and when such were introduced artificially, it sought to adapt them to the prevailing accentuation in various ways. In the earlier sheath of learned proparoxytones the whole final syllable was thrown off; after their adoption they underwent various modifications, some of which are not easy to understand, as the origin of the diphthong in *grammaire*, *tieve*, etc. In proparoxytones introduced later, the tonic accent was generally shifted to conform with the usual paroxytonic accentuation, as in *fragile*, *rustique*, *mobile*, etc.

A striking illustration of the different ways of treating a learned proparoxytone is found in the word *fragilem*; (1) *fraile*, earliest form, with the syncope, but without development of palatal *l*, and with retention of the final vowel; (2), *frage*, with loss of the whole final syllable; (3), *fragile*, with accent shifting.

There is one possibility, however, which demands attention. May not some of these words *ruiste*, *doie*, *foie*, etc., which are very old, represent by-forms having a different accentuation in the stress-group? The degree of stress given to a single syllable varies, and the relative position of the various subordinate accents varies with this. The usual reduction of proparoxytones in Romance implies an accentuation with a secondary accent on the ultima, and with least stress on the penult, $\swarrow \bar{\wedge} \Delta$. Could, under conditions which are now obscure, this accentuation be changed to one where the penult receives the secondary accent $\swarrow \Delta \bar{\wedge}$? If this supposition be correct, then the loss of the final syllable is easy to account for, as that syllable with the weakest stress will always fall. One fact, however, seems to decisively negative this supposition, namely, the development of the vowels in the accented syllable. If the above accentuation really prevailed in some instance, then we should expect to

see the accented vowel develop as in an open syllable. This only occurs in the East French forms *manicum* : *men(e,)* *granica* : *grène*, *rapidus* : *reffe*; and in O. Fr. *tieve* (In *doie*, *foie*, etc., the diphthong may be due to the following palatal consonant), and O. Fr. *avuege*. In comparison with the whole number, these form a very small percentage, and therefore the assumption of sentence doublets is probably to be rejected.

Meyer-Lübke's hypothesis, that the vowel *a* in the penult hindered syncope for a time, is based on *moine*, *foie*, *ane*, and one or two other words. It is in keeping with the greater sonority of the vowel *a*. But why, if Meyer-Lübke's series, *anatem* : *anade* : *anee* : *ane* (*Gr.*, I, p. 447) be correct and *a* be retained till after the fall of intervocal *d* (end of the eleventh century), is not the tonic vowel developed to *ai*, as in all open syllables (*cf. panem* : *pain*). It is moreover contradicted by other forms with syncope of *a* in the penult. *cf. cannabis* : *chanve*, *petalon* : *poile*, *scandalum* : *eschandle*, *bufalus* : *buffle*, *bal-samum* : *balsme*, *platanus* : *plane*, *Stephanus* : *Estienne*, *calamus* : *chalme*, *Lazarus* : *lasdre*, *colaphum* : *colp*, etc.

It will have been noticed that nearly all of the words in *-nicus* appear only in the learned form; so, *moine*, *canoine*, *arsoine*, *maine*, *vetoine*, etc. The ecclesiastical and medical character of these is evident. The popular development seems to be represented by *manica* : *manche*, *manicum*, "handle" : *mange* (*Gir. de Ross*) : later *manche*, **granica* : *granche*, *manichus* : *mouge* : *canonicum* : *canonge* : *Santonicus* : *Saintonge*. Why is the final vowel retained in these words? *cf.* the primary group *nc*, *banc*, *manc*, etc. As in the case of the suffix *-aticum*, the syncope could not have occurred till after the shifting of *c*, through *g*, to a spirant *zh* before the weakened vowel *e*. Then in the passage from the dental *n* to the blade point spirant *zh* a slight "neben-silbe" or glide would be necessary; this, aided by the original greater stress of the ultima in proparoxytones has preserved the final syllable. The commoner forms, *moine*, *canoine*, etc., I should explain by the rejection of the whole final syllable with its consonant, and the retention of the penultimate vowel as consonantal *i*, with later "attraction" *canonicu* : *canonie* : *canoine*. *cf.* the forms *monie*, *Roland*; *munie*, *St. Brandan*, etc.

Similarly *apostolicu* : *apostolie* : *apostoile*, *antiphona* : *antefie* : *anteife*.

The older language has a few examples of the apparent retention of proparoxytones, mostly in borrowed words; thus *virginem* : *virgene* : later *vierge*, *imaginem* : *imagene* : *image*, *ordinem* : *ordene* : *orde* (cf. *orne*), *diaconem* : *diacene* : *diacre*, *pagina* : *pagene* : *page*, *orphanum* : *orfene* : *orfe*, *juvenum* : *jovene* : *juefne*, *Stephanum* : *Estevene* : *Estienne*, *anima* : *aneme* : *ame*, *angelum* : *angele* : *auge*, *utilem* : *utele* : *utle*, *schandalum* : *eschandele* : *eschandrif*, *titulum* : *titele* : *titre*, *idolum* : *idele* (Roland 3664) : *idle*. All of these count for but two syllables in the metre, and in most cases, the *e* of the penult is probably only a graphic sign, to express the consonantal character of the *v* (written *u*) as in *jovene*, or the spirant character of the *g*, as in *virgene*. In other cases, *titele*, etc., it may represent a slight secondary syllable developed from the voice of the *l* or *n*. In slower pronunciation the vocalic character of these sounds would assert itself, and produce an evident voice-glide after the consonant, **idele*, *ordnne*, etc.

In discussing the pretonic syllables, I shall have occasion to come back to this tendency of the vowel-like consonants for more extended consideration. (cf. on these forms, Paris. *Etude sur le rôle de l'accent*, p. 24 ff. and Tobler, *Versbau*, 28.) In a few instances this svarabhaktic vowel is developed in original paroxytones; cf. *tenuem* : *teneve* (generally *tenve*) *fabrum* : *fevere* (generally *fevre*). But in these the *e* may be only orthographical.

Treatment of the Proparoxytones with Regular Syncope.

I omit all proparoxytones with original final *a*, and the late borrowed ones with accent shifting.

Sonant + consonant.

r + dental, syncope in all the Romance languages. It was probably very early, the group being already frequent in Latin as a primary combination. Consequently the final vowel falls in French. *luridum* : *lort*, *laridum* : *lart*, *viridem* : *vert*, *exeritum* : *espert*, **exaritum* : *essart*, *horridum* : *ort*; *fascem-luridum* : *falourde*, is an exception difficult to explain. The etymon is not certain. cf. Körting. *Lat. Rom. Wörterbuch*.

r + Guttural. *r-c* seems to occur only in the word *clericum: cleric*, named by Schwan (*Afr. Gr.*, p. 27) a loan-word, on account of the *c*. But would not the final guttural be unvoiced, even though it had been reduced to *g* before the syncope? cf. *vert*. The ultima then falls as it does in *arc*, *porc*, etc. The character of the word, however, renders it liable to suspicion, expressing as it does a purely ecclesiastical idea. If this view be correct, then the by-forms *clergue*, *clerge*, represent later and learned importations.

The development of *r-g* in *Bituriges:Bourges* militates against this view. In this case, the retention of the ultima must be explained by the possibility of a greater stress on the final syllable of proparoxytones than of paroxytones, enough to preserve it in favorable positions in the stress-group. Here the final vowel is always anti-consonantal, and a voice glide is necessary to effect synthesis between *rdzh* and *s*. *asparagus:asperge* is an Ital. loan-words. Proparoxytones with guttural after *r-groups* occur but rarely. *forge* from *fabrica* seems to have been influenced by the verb *forger*. We should expect **forche*, in accordance with the law established by Neumann. **tenebricus:tenerge* offers difficulty in its stem-vowel, and like *forge* may stand in a system with the verb *tenergier*. After such groups, the retention of the ultima would probably depend on the late or early assimilation of the labial before *r*. (cf. however, Meyer-Lübke, *Ztschr. f. neufrz. Spr. und Litt.*, XV, 87).

r + labial occurs only in **scarabus: escharbe*, which is hardly a popular word.

l + dental. This group was syncopated early, (cf. *Zt. caldo*, etc.), and the final vowel falls as it does after primary *lt. calidum: chalt*, *Curiossoltiae: Corseult*, **fallitum: falt*, **solatum: solt*, *solidum: solt*, also *sol: sou*. The last word shows generally levelling to the feminine, *solde*.

l + guttural. *l* in union with velar *c*, *g* does not occur. After *l + palatal c*, the final vowel is, as a rule, retained. *pollicem: polce*, *ilicem: elce*: *yense*, *pūlicem: puce*, *salicem: salse*, with the by-forms *sals* (*Ps. of Oxford*). These words are adduced by Meyer-Lübke in support of his theory that the syncope does not occur till after the fall of the ultima. If this were the case, why should not the accented vowels be developed as in open syllab-

bles? This is never the case, and seems to constitute a fatal objection to his theory. How then is the preservation of the ultima to be accounted for? The form *sals* occurs in one of the earliest monuments. cf. also the subjunctive forms *colligit*: *cult*, *collocet*: *culzt*, **caballicet* : *chevalzt*. The same singular retention of the ultima after *r-c* is seen in **mellaricem*: *melèze*, if the etymon be correct. To account for the retention of the ultima in these and similar proparoxytones (*pance*, *comte*, etc.,), as contrasted with its fall after similar primary groups, may we not suppose that the original higher grade of accent on the ultima in proparoxytones has preserved the vowel? In a word like *pùlicèm*, the stress of the final syllable would be greater than in the dissyllabic *càlcèm*, where the ultima follows immediately the tonic syllable. If, after the syncope, this greater stress was maintained to a certain extent, the final syllable would show itself more capable of resisting the weakening process than otherwise. The greater force given into the accented syllable—the chief cause of vowel-reduction in French—could act directly on the final only after syncope. This theory has already been put forth by Lindstrom, *op. cit.* p. 46. (cf. also Vising, in his review of Lindstrom's work; *Littbl. für Germ. und Rom. Phil.*, XIV, 289.) The by-forms *sals*, *chevalzt*, etc., are probably due to relations in the stress-group, where the stress of the whole combination was weakened. Verb forms especially are more weakly accented in the sentence than substantives.

l + labial, in the one example, *colaphum* : *colp*, shows early syncope and loss of the final vowel. *polypus* : *poulpe*, N. Fr. *pieuvre*, is probably a loan-word, as the inorganic *r* in N. Fr. indicates.

l+ labio-velar qu is found only in *aliquid* : *alques*. This longer form may be due to the analogy of other adverbs like *dongues*, *ongues*, etc. It is remarkable that **alcs* is never found. The form may possibly be derived from *aliquas*.

n + dental. This group is rare. The final falls as after primary *nt.* *repoenito* : *repent*, *genitus* : *gent*, *sub-monitus* : *semont*; *cognitus* : *cointe*, seem to be an exception. cf. the primary group. It is cited by Meyer-Lübke in support of this theory of late syncope. But in the compound *acoint* the shorter form is the rule: *cointe* would then be a generalized feminine form, as in

many other adjectives, *lasche, chalve*, etc. *Namnetes : Nantes, Vannetes : Vannes* are further exceptions.

n + guttural has already been considered. I may also mention the word *donique* : *donc*, and *donques*, which follow the analogy of *onc · onques*.

n + labial is not found as a primary group. Examples : *cannabis : chanve : chanvre, sinapis : sanve*.

Here the preservation of the final vowel seems to be due to the disparity in position of *n* and *p, b*; the transition from one position to the other could not be effected without a decided glide. As compared with *colaphum : colp*, both show late syncope after the weakening of the intervocal labial to *v*.

m + mute. *m* as the initial consonant in the ultima of proparoxytones only occur before *t* and palatal *c*; both unknown as primary combinations. After each the final vowel is regularly retained. *comitem : conte, frēmitus : friente, *fīmitus : fiente, *comitem : jante, tarmitem : arte (?)*, *domitum : donte, *pūnicem : ponce, rūnicem : ronce, *adrūnicem : aronce*, also *aronz*, (cited by Godef. from *chasse de Gaut.*), *ramicem : rance, *camicem : chanse*. For further instances in place-names, cf. Lindstrom : *op. cit.*, p. 54.

In addition to the principle of greater stress noted above, another one may have been at work here. Until the assimilation, *m > n*, before *t*, or *ts = c* was accomplished, a perceptible vowel glide would be necessary to pronunciation. This would tend to preserve the final vowels. *arons*, masculine, is probably a new masculine formation; it occurs comparatively late. **cremitus : crient*, may also be a new masculine formed according to the analogy of other strong participles.

m-d seems to be found only in *quo modo, com* and *comme*. The shorter forms occur first in the Passion. The word shows strong reduction in all the Romance languages. Ital. *come*, Sp. *como* (*com*), a reduction probably due to its proclitic use. The disappearance of *d* is difficult to explain. Meyer-Lübke (*Gr.*, I, 505), assume a Vulg. Lat. *quomo*.

s + mute. This occurs only in the combination *s-t*. There are very early examples of the syncope. As with primary *st*, the ultima falls always. *positum : post, praepositum : prevôt, *acquaesitum : aquest*.

mute + s, seems to be found only in the proper nouns, *Vidūcasses* : *Vieux*, *Tricasses* : *Troyes*, which show a remarkable diversity. Lack of material does not enable to decide which represents the regular development. The difference may be due to a difference in the pronunciation of the original Keltic words, which the Latin transcriptions represent only approximately.

Mute + mute.

We find a few examples of homorganic mute groups arising through the syncope; all are cases of dental + dental. The final vowel falls as it does after original double consonants. *peditum* : *pet*, *putidum* : *put*, *madidum* : *mad*. Participle-substantives like **fendita* : *fente*, *vente*, *tonte*, etc., are all based on the feminine. *quitte* is probably best explained with Suchier as a learned legal form of *quiētus*, not from **quitidius*.

Guttural + dental. Like the primary group, after this combination the ultima falls. Syncope, though peculiar to Gallic Vulgar Latin, was probably early, and the resulting assimilation was completed before the final reduction of the last syllable. *placitum* : *plait*, *sollicitum* : *souloit*, *rugitum* : *ruit*, *rigidnm* : *roit*, *magidem*; *maid* (cf. *maie*), *adplicitum* : *aploit*, *digitum* : *doit*, *vicinti* : *vint*, **vōctus* : *vuit*. The same reduction occurs after a consonant in *gurgitem* : *gort*, *de-ex-pergitum* : *despert*. Exceptions, *flaccidus* : *flaiste*, (cf. *Ztschr. f. Rom. Phil.*, XI, 254). **muccidum* : *moiste*, *raucidum* : *roiste*. These are probably loan-words; they show, contrary the examples given above, late syncope, after the assimilation of e before i. The verb-forms *faites*, *dites*, *estes*, are undoubtedly due to analogy.

Dental + guttural. This group is not found as a primary combination. In the case of *relar c*, it shows syncope after the reduction of the tenues to mediae. Then ensued reciprocal assimilation, and the sound *dzh(g)* is the end-product. This assimilation was completed late. Schwan and others suggest that the sound *dzh* was, in early French, unpronounceable finally. Picard forms, like *sench*, *cuich*, *dolch*, etc., seem to contradict this although here the sound *tsh* has a different origin, and a dialect distinction may be present. The sounds *d* and *zh* (point and blade point respectively) are not exactly homorganic, and a slight glide is always heard after the combination; more especially if the stop of the *d* is marked. Examples :

*aticum : age, *pedicum : piege, medicum : mege, *huticum : huge, sedicum : siege, porticum : porche, domesticum : domesche, levisticum : livesche, toxicum : tosche.*

Dental + palatal *c* likewise shows retention of the final vowel. In this case, we shall have to recur to the explanation given above for *l-c*; the two consonants are homorganic after the assimilation of the *c*, and the so-called "affricate" *ts, dz*, occur frequently as a final. **excoricem : escorce, sedecim : seize, *dodecim : doze, ondecim : onze, tredecim : treze, panticem : panse, quindecim : qninze, judicem : juge* is due to the analogy of *juger* (see Meyer-Lübke, *Ztschr. f. Rom. Phil.*, VIII, 232.)

Guttural + Labial. A very rare combination. It seems to occur only in *episcopum : evesque*, a word that is not genuinely popular. With the regular syncope we should expect a form with assimilation of the middle consonant in the group, possibly **evespe* (*cf. Span. obispo*) The word seems to belong to the category first treated, which show a loss of the whole ultima syllable. So likewise *Jacobus : Jacques*, and *Jaimes*; the last may show early substitution; *Jacomus* for *Jacobus*; if so, then it is regular. (*cf. however, Meyer-Lübke, Gr., I, 494, and Karsten, Modern Language Notes, VII, 343.*)

Labial + Guttural. This group is still rarer. One example, *sarcophagus : sarcos, sarquieu*. Meyer-Lübke, (*Gr.*, 443), assumes reduction of *agus* to *aus*, as *Vulg. Lat. *sarcofus*; and some such form seems necessary to explain the later diphthongation, which can only occur in an originally open syllable. (*cf. also Gröber, ALL, 2, 459, and Lindström : op. cit., p. 46, where reductions of a similar nature in place-names are cited*).

Labial + palatal *c* is more common. Most of the examples show retention of the final syllable; thus: *förficem : force, hirpicem : herse*. In this triple consonant group, the middle consonant falls, or is assimilated. The process could not have been completed till after the loss of the final syllable. So long as both mutes were pronounced with a full stop, the weakened ultima would be retained as the necessary vowel-glide, after the explosion of the last. On the other hand, *Eburvices : Evreux* indicates an earlier assimilation of the weaker spirant *v*; at a period before the final weakening of the end-syllable.

Dental + Labial. This group does not seem to be found.

Labial + dental. A common group; the final vowel is generally retained after it. *sapidum* : *sade*, *subito* : *soude*, *rapidum* : *rade*, **malehabitum* : *malade*, *cubitum* : *coude*, *vapidum* : *fade*, *ambitum* : *onde*, *computum* : *conte*, *tepidum* : *tedde* : *tiède*, *hispidum* : *hisde*, *emptum* (Gr. ἔμφυτον) : *ente*, *impetum* : *ende*, **dubitum* : *doute*, (verbal subst.), *hospitem* : *oste*. (cf. for the primary group, *set*, *sotz*, etc.) I believe this distinction to be due to a difference in the chronology of the assimilation. The assimilatory process in the primary group was completed early, as we have seen, probably before syncope in proparoxytones. After this latter process, a period of assimilation would ensue. We are in ignorance of the rate with which this process was consummated or when it was completed. But the retention of the ultima indicates that it was late. The combination *bd* was unfamiliar, and the complete closure of the lips in the *b* articulation, with subsequent explosion and formation of the *d* position would render a weakened final "Neben-Silbe" necessary. Still some instances of the loss of the final are found. *Atrébates* : *Arras*, **deservitus* : *de-sert*, *ad-computum* : *acont*, (cited by God. from a texte of 1298), *debitum* : *det* (Guiot, Bible in God.) : *deit*, *redu-bitum* : *redot*, (Chrest, Cliges, 5450), **repütum* · *ret*, (Garnier, Vie de St. Thomas in God.), *terra*, **movitum* : *terremot*, (Dial de St. Greg. in God.) cf. further the form *dout* < *dubito* and *dubitem*, often found in the earlier monuments. No conclusion is here possible, since *dout* may be due to the analogy of other 1 sq. pres indicative and subjunctive like *aim*, *mont*. cf. *desir*.

Some of these, *ret*, *redot*, *acout*, are probably late formations, verbal substantives. On the other hand, for *Arras* and those words with original *v*, we must assume that the assimilation was completed earlier. This is not surprising, especially when we consider that the reduction of intervocal *b* to *v* was one of the earliest developments in Vulgar Latin. The combination *v* + mute is pronounceable without a vowel-glide. **levitum* : *leude* is not entirely popular, as the vocalization of the *v* shows.

Mute + *r*. As after the original combination, the final syllable is here retained, either as sonant *r*, or as the indefinite *e*, developed from the voice of this. It is difficult to decide which was present in the older language. Examples are very numerous: I cite only a few.

Guttural + *r*. In secondary groups, *gr* always shows retention of the final. *facere* : *faire*, *ragere* : *raire*, *cicerem* : *coire*, *ligerem* : *loire*, *lucere* : *luire*, *adaugere* : *aoire*, etc. The same development occurs for gutt. + *r* after other consonants, so far as the final vowel is concerned. Various processes of assimilation occur, into which I need not enter here. The groups *nc-r*, *ng-r*, *rc-r*, *rg-r*, *lg-r* show an assimilation of the guttural to the dental environment. (See Neumann, *Littbl. f. Germ. u. Rom. Phil.*, 1885, p. 244); Karsten, *Mod. Lang. Notes*, I, p. 219; Gutheim, *op. cit.*, p. 55). Examples : *jungere* · *joindre*, *tīngere* : *teindre*, *adērigere* : *aerdre*, *cīngere* : *ceindre*, *frangere* : *fraindre*, *vincere* : *veintre*, *torquere* : *tordre*, *parescere* : *paroistre*, *cognoscere* : *conoistre*, *crescere* : *croistre*, *carcerem* : *chartre*, *sūrgere* : *sordre*, *tergere* : *terdre*, *mūlgere* : *moldre*, *colligere* : *cueldre*.

Words that show a retention of the guttural are learned, thus : *socerum* : *suegre* : *suere*, *augūrem* : *ogre*, *ancora* : *ancre*, *Mērcurius* : *mercre*, *Bulgarus* : *bolgre*. The only exceptions are some verbs which have undergone a change of conjugation ; they have taken the ending of the fourth conjugation by analogy. *maledicere* : *maleiir*, *benedicere* : *beneir*, *colligere* : *cueillir*. The first two are moreover learned words.

Dental + *r*. Examples are very numerous. All show retention of the final syllable. *claudere* : *clore*, *credere* : *croire*, *radere* : *rere*, *ridere* : *rire*, *rendere* : *rendre*, *perdere* : *perdre*, *presbyter* : *prestre*, *mittere* : *mettre*, *duminterim*, *dementre* : *dontre* (Leodegar) **būtyrum* : *burre*, *dexterum* . *destre*, *martyrem* : *martre*.

The secondary group *s-r* intercalates *d* with retention of the final syllable. *consuere* : *cosdre*, *Lazarum* : *lasdre*, **cisera* (for *sicera*, cf. Meyer-Lübke, *Gr.*, I, 446) : *cidre*, *miserum* : *mesdre*. Exception : the form *proveir* from *presbyterum*, generally *provaire*, is found in a late text, (cited by Godef. *Psalms. Brit. Mus.*) The form *desir*, from *desidero*, or *desiderem*, is certainly due to analogy. (cf. supra, *dout.*)

Labial + *r*. Equally common *pīperem* : *poivre*, *pauperum* : *povre*, *lupare* : *Louvre*, *sequere* : *sivre*, *asperum* : *aspre*, *vesperum* : *vespre*. The group *lv-r* assimilates the *v* to the dental environment. *solvere* : *soldre*, *volvere* : *voldre*, *pulverem* : *poldre*.

Sonant + *r*. None of these groups occur as primary combinations. Since *r* is the most sonorous of all consonants, the re-

tention of the final syllable is the rule. The transition from the nasal and *l* to the more sonorous *r* is effected by means of a glide-consonant. In every case *r* remains as the syllabic of the ultima. *cinerem : cendre*, *generem : gendre*, **manère : maindre*, *ponere : pondre*, *cucumerem : concombre*, *numerum : nombre*, **abemere : *aviembre : aveindre*, *fremere : friembre : freindre*, **despri-mere despriembre : despreindre*, *gemere : giembre : geindre*, *tre-mere : criembre : craindre*, **colyrus (for corylus) : coldre*, *molere : moldre*, *tollere : toldre*, *vellerem : velre*, *colere : coldre*, etc. In *cammarus : jamble*, sound-substitution in a loan-word has occurred.

In the group *h-r*, in the infinitives *struhere : struire*, *trahere : traire*, *c* has been substituted for *h* in Vulg. Lat. according to the analogy of the participles, *stractus : tractus*. See Gröber in Wolfin's *Archiv*, VI, 131.

A secondary combination of the same consonant could not need a "supporting vowel." Therefore the retention of the ultima in *cūrrere : corre*, *quaerere : querre*, is surprising. (cf. *soror:suer*). They are probably due to analogy. Such infinitives as the regular **cor : *quer*, would be entirely isolated in the older language; and so, according to the model of *dorai : clore*, to *corrai* the infinitive *corre* was created.

Consonant + *l*. These groups, especially common in Latin in the ending *-ulus* seem to have been syncopated very early. Indeed it is doubtful if the popular language ever possessed *-culus*, where the penultimate vowel arises through "svarabhakti" in classical Latin. Syncope must have been in general so early as to admit of various processes of assimilation before the outfall of the ultima. For Latin examples of syncope before *l* see Lindsay, p. 176; *poplom*, where the *u* is original, is met with in Plautus.

Dental + *l*. *-culus* is the regular representative of *-tulus* in Vulg. Latin. This secondary *-culus* : *-clus* is treated like other *cl* groups. Assimilation must have been completed very early, with production of palatal *l* as the end-result. After this homorganic sound, the final vowel falls as it does after a simple consonant. *vetulum : vclum : vieil*, *acētulum*, *aisil : radula* : *raille, situla : seille*.

In loan-words the ultima is always retained, while the *l* is

never palatalized. They may be divided into several categories, according to the period of their reception into the language.

(1). *tl, dl>l, ll.* (cf. Gutheim, *op. cit.*, p. 44. This assimilation could not have been completed when the reduction of the finals occurred. *modulum : moule*, *rotulum : role*, *petalon : poele*, *spatula : espalle*, etc.

(2). The group is retained as such, or a substitution of the more usual *tr, dr* occurs. *idolum : idle* : *idre*, *utilem : utle*, *titulum : title* : *titre* : *Wandalum : Vandle*, *capitulum : chapitle* : *chapitre*, *apostolum : apostole* : *apostre*, etc.

After the group *ct-l*, the final vowel seems to be retained, although a palatal *l* is produced. *ductilem : doille*. If this is regular, it would indicate a development, *ductile* : *doctile* : *doct'lé*. *doct'lé : doile*, the last assimilation not occurring until after the fall of the ultima.

In **pestulum : pesle*, simple reduction of the tri-consonantal group has taken place, with *l* retained as the syllabic after *s*.

Guttural + *l* shows the same development in popular words, as secondary *du* from *tulum*. Examples are very numerous. *öculum : oeil*, **přiculum : peil*, **dagulum : dail*, *soliculum : soleil*, etc. It should be observed that new feminine forms are frequent, especially in the older language, for words in *aculum*, cf. *murail : muraille*, *cenail : cenaille*, *travail : travaille*, *ventail : ventaille*, etc.

After the consonants *n, r*, the guttural seems to be retained ; *l* then appears as the syllabic of the final syllable. *angulum : angle*, *avunculum : aoncle*, *dracunculum : draoncle*, *circulum : cerclle*, *cooperculum : covercle*. But the development in *margila : marle*, excites a doubt as to whether *cerclle : covercle* are genuinely popular. *torculum : treuil* shows early metathesis. *calculum : chail* shows early syncope, with simplification of the resulting *lcl > l'l > ll > l*, before the loss of the finals.

The group *sc-l* exhibits loss of the *c* with retention of the *l*, as the syllabic of the final syllable after the *s*. Is this popular ? *masculum : masle*, *mūsculum : musle*, *osculum : oscle*, *vasculum : vasle*, are probably loan-words. Exceptions fall into several categories, but all are loan-words. *fragilem : fraile*, *gracilem : grisle*, show by the non-palatal *l* and the assibilation of the *c* in *grisle*, that they are borrowed. **secale : seille* and *sègle*. Other

loan-words have a vocalization of the *c*, *g* to *u*, or retention of the group, as such. *saeculum* : *seule*, *siegle*, *siècle*, **aboculum* : *avuelle* : *avuegle*, *tegula* *teule* : *tiule*, **buculum* : *bugle*. cf. also *binocle*, *vesicle*, *vericle*, *spectacle*, *miracle* (besides O. Fr. *mirail*), etc. See Waldner : *op. cit.*, p. 440.

The group *s-l* is preserved, and shows retention of the final syllable. *pensile* : *poisle*, **grisulum* : *grisle*, *pessulum* : *pesle*, (N. Fr. *pesne* : *pene*).

Labial + *l*. Here a certain doubt arises as to the treatment of the final vowel in popular words. The group presents, as is well known, a double development. The first exhibits very early reduction in Vulg. Latin of *abulus* to *aulus* : *olus*; probably through the intermediate stages *avulus* : *avlus*, with gradual cessation of the stop. The date of this vocalization is not known, but as it occurs in other Romance languages, it must have been early. The examples show generally a retention of the final vowels. *tabula* : *tole*, *stipula* : *esteule*, *populum* : *poule*, *peule*, **gravulum* : *grolle*, (cf. Meyer-Lübke, *Ztschr. f. Rom. Phil.*, X, 172), *mobilem* : *meule* (generally *mueble*), *Stabulae* : *Étaules*, *abilem* : *aule*. But on the other hand, **parabolo* : *parol*, **parabolet* · *parolt*, (*Rol.* 1206). The last two forms are open to the objection of analogical influence. (cf. *desidero* : *desir*, for *desire*, *dubito* : *dout* for **doude*). Still it is difficult to assume that in words with such an early assimilatory process the final syllable should be retained. *grolle*, *meule*, *aule*, may be due to contamination with the other borrowed forms. A decision can hardly be reached in the scarcity of material.

The second, half-learned development shows retention of the labial; after this the *l* naturally remains as the syllabic of the final syllable. *débilem* : *doible*, *ébulum* : *ieble*, *capulum* : *chable*, *flebilem* : *foible*, *insubulum* : *ensouple*, *mespilum* : *nèfle*, etc. *escueil* represents a Vulg. Latin **scoculus* for *scopulus*.

After the secondary group *m-l*, the final syllable is preserved. A glide-consonant *b* is generally intercalated in the majority of the dialects, although in Picard and Walloon the group remains as such. *cumulum* : *comble*, *simulo* : *semble*, *humilem* : *homble*, *hunle*, *famulum* : *famble* : *fanle*. For *n-l* the sole example is *spinula* : *espingle*, with final *a*.

More surprising is the preservation of the ultima after the

group *r-l*. Examples : *Carolus* : *Charles*, *gerulum* : *gerle*, **orulum* : *orle*. Here again the peculiar nature of the Latin-French *l* is seen. The synthesis of the dento-lingual *r* and the guttural *l* could not be effected without a well-marked glide, which retained a syllabic character, owing to the vocalic nature of the consonants.

Mute + nasal. The group *g-n* shows the same development as the corresponding primary group. The syncope is regular and apparently early, and the resulting complex *gn* has undergone reciprocal assimilation, with production of a palatalized *ñ*. After this simple consonant the ultima falls. Suffix *-aginem*, -*ain* in *plantain*, *fusain*, *ondain*, etc. *rubiginem* : *ruïn*, N. Fr. *rogne*, **ad-vertiginem* : *avertin*, etc.

All exceptions are either loan-words, with accent-shifting, as in *origine*, etc., or are due to a change of suffix, as in *originem* : *orine*, *caliginem* : *choline*, where the ending *-iginam* has been substituted for *-iginem*. (cf. Cohn, *Suffix-wandl*, p. 175).

For *g-n* after consonants, I find one example, *Langones*. *Langres*, where the more common group *gr* has been substituted for *gn*. We should expect secondary group *c-n* to show the same treatment, a difference in the date of syncope being unlikely. The only examples, however, exhibit assibilations of the *i*, after which the *n* remains syllabic, as after original *s*. *acinum* : *aisne*, *cicinum* : *cisne*. Both are early loan-words, as Lat. *i* = *i* shows.

For *c-n* after other consonants one example is found, *circinum* : *cerne*; here *c* must have been preserved in the triple consonant group till after the reduction of the final syllable.

c-m. The regular development of this group is doubtful, owing to certain words with primary *gm* (all with *a* in the ultima), where *gm* becomes *um*, (*fleume*, *piument*, etc.) The secondary group *c-m*, however, shows development of a parasitic *i*, with retention of the final syllable. *facimus* : *faines*, *dicimus* : *dimes*, *decimus* : *dismes*, with *s* from the analogy of *dis*. *diaconum* : *diacne* : *diacre* is a loan-word. *inguenem* : *aigne*, N. Fr. *aine*; in this word the triple group *ng-n* has apparently preserved the final.

Dental + *n*, *m*. After this group, like the corresponding *d*, *t+r*, the final syllable is preserved, although the dental has dis-

appeared before the earliest literary monuments. *abrotonum* : *aurone*, *Redones* : *Rennes*, *Rhodanum* : *Rhone*, *platanum* : *plane*, *maritimum* : *marenne*. After other consonants, *cardinem* : *charne*, *ordinem* : *orne*, (more commonly *ordre*, loan-word). *pec-tinem* : *peigne*, with palatal *ñ*, due to the preceding palatal group. *septimum* : *sedme*, **octimum* : *uitme*, **tetrinum* : *terne*. In this word the reduction of *tr-n* to *r-n* must have occurred earlier than intervocal *tr > r*; a dissyllabic **tedrne* is impossible, owing to the sonority of the *r*. *tudinem* : *tume*, in *costume*, *endume*, *engue-tume*, etc. In these words the suffix *-uminem* or *-umina* has apparently been substituted for *udinem*. cf. Cohn, *Suffix-wandl.*, p. 264 ff. Meyer-Lübke, *Gr.*, II, 450.

s + nasal. As the nasals are of greater sonority than the spirant, the final syllable is retained. Whether the syllable was reduced to syllabic sonant *m*, *n*, or whether the vowel was preserved as *e*, is scarcely to be decided. Probably the relation in the stress-group would determine the phonetic character of the end-syllable in every case. In slower, more protracted pronunciation a vocalic after-sound would be heard, *sme*, or *sm^e*; in more rapid speech this would be reduced to *sm*. *asinum* : *asne*, *resinum* : *reisne*, *fraxinum* : *fraisne*, *maximum* : *maisme*, **pras-simum* : *prasme*, *proximum* : *proisme*, **seximum* : *sisme*, *esimum* : *esme*.

Labial + nasal. The labial was ultimately assimilated, although this process was late, the earliest monuments showing retention of the labial before *n*. After such a complex, the final syllable is retained. *juvenem* : *juēfne* : *juene*, *Stephanum* : *Es-tiefne* : *Estienne*, **novimum* : *nuefme*, *avimus* : *ames*, *galbinum* : *jalne*, **carpnum* : *charme*. Some loan-words show substitution of the more frequent group, labial + *r*, for the original; *pam-panum* : *pampre*, *timpanum* : *timbre*, **cofinum* : *coffre*. The secondary group, *l-m*, shows the same line of development as the primary. The final vowel is retained. *calamus* : *chalme*, *regalimen* (for *regimen*, see Cohn, *Suffix-wandl.*, p. 64) : *royaume*.

r + nasal exhibits a remarkable variation from the corresponding primary group, if we may judge from the two examples; *erenum* : *erme*, *erimus* : *ermes*. But for *r-n*, *Turones* : *Tours*. Meyer-Lübke (*Gr.*, I, 261) cites *erm*, but I am unable to find examples of this form. It is, however, hardly a popular

word. *ermes* may follow the analogy of other first person plurals. In the lack of other material, and in view of the surprising difference from primary *rm*, I am indisposed to assume as a law that after *r-m* the final vowel is preserved.

m-n. Like the primary group, after secondary *m-n* the final vowel seems to be in general retained; but here also some apparent exceptions are found. Examples.—*hominem* : *ome*, *carmignum* : *charme*, **abominum* : *abosme*, *terminum* : *terme*, *viminem* : *vime*, *légume*, *bitume*, etc., are learned words. On the other hand, *dominus* : *dames* and *dans*, *farcinum* : *farcin*.

The last probably represent the effect of the action of the relations in the stress group. It is not improbable that doublets existed originally in every case, although the reasons for the preservation of the longer forms are difficult to discover. *dame* and *dans* both show in the accented vowel that they were treated like a proclitic, but this does not remove the difficulty, the laws for the retention of the prot tonic vowel being the same as those for the ultima; cf. the doublet *damoiselle*, *dancelle*. But we shall see that double-forms are found much more frequently in prot tonic syllables than in finals. The prevalence of the longer forms with these words may be due to the greater frequency of initial consonants in following words. That, however, such doublets really existed, even in the case of non-proclitic substantives, is proved by *farcin*. The final consonant *n*, for regular *m*, is due to the analogy of the earlier nominative form with *s*, as in *dans*.

The reverse group, *n-m*, is found only in two examples, *minimum* : *merme*, *Hieronymus* : *Jerome*. The group shows regressive assimilation, with retention of the final vowel. The same causes would operate to preserve the ultima, as for *m-n*. Till the *n*-articulation ceased entirely, the following *m* must have been heard as *m*, or *me*. And, as with *mn*, this dissyllabic character was retained after the reduction of the final syllables in general.

PART III.

Development of the Pretonic Vowels.

The general principles governing the weakening and outfall of the vowels preceding the tonic accent are the same as those

for the post-tonic. This is the main result of Darmesteter's essay already cited, and has been accepted by all later investigators. After the secondary accent which (at least in words of only two pretonic syllables) always rested on the initial syllable of the word, as after the chief ictus, unaccented syllables with the vowel remain ; all others are subjected to syncope. I shall take up first only those words (the great majority) which have but two pretonic syllables, like *bónitatem*, reserving those where the chief accent is preceded by three or more syllables. In the latter, the consideration is complicated by the different views prevailing as to the position of the secondary accent.

Pretonic syncope was not common in classical Latin, most of the apparent cases being due to the action of the earlier accent law, according to which the chief ictus rested on the initial syllable. (cf. Lindsay, 171, ff.). During this earlier period, ē, ī, in an open syllable immediately following the accent were, as a rule, syncopated. Examples are, **ambi-colos* : *anculus*, **formīceps* : *forceps*, **vini-demia* : *vindemia*, *aperio-apricus*, *Aprilis*. (cf. Lindsay, p. 178.)

Examples of true pretonic syncope under the later accent law are rare ; such are, possibly, *aridus*, but *ardere*, *ardorem*, *bene-ficiūm* : *benficiūm*, *cale-facere* : *calfacere*, *discipulus* : *disciplina*, *figulus* : *figlīna*.

In Vulgar Latin such shorter forms were undoubtedly more numerous, though the development of the non-Gallic Romance languages shows that this pretonic syncope was far from being so general as the post-tonic in proparoxytones. In Italian, for example, such syncope occurs only after liquids and nasals, and between a few other consonants like *s-t*, *s-c*, *d-c*. cf. Ital. *cervello*, *beltà*, *bontà*, *costuma*, *riscare*, *dazzina*, *andare*, etc. (See Meyer-Lübke, *Gr.*, I, 275, and *Ital. Gr.*, p. 85.) In the examples from the inscriptions collected by Schuchardt, syncope is most common in the protonic of words with only two pretonic syllables, one of which contains a liquid. (*Vocalismus*, II, 423 ff.). The most interesting of Schuchardt's examples, in reference to French, are *Dominin*, cf. O. F. *dancel*, *maldicto*, cf. O. F. *maldit*, *pulcare*, cf. O. F. *espulcer*, *vercundus* cf. O. F. *vergogne*, *virdiario*, cf. O. F. *vergier*.

Accepting the suggestion of Darmesteter that the tonic accent

divides the word into equal parts, we find that the initial syllable always persists, and that the second, distinguished as the pretonic, is usually syncopated. There is no doubt that the initial syllable had a secondary accent, probably preserved from the original accentuation (*cf.* Lindsay, p. 159). In this case we should expect that the pretonic syllable would have in general the same fate as the ultima in paroxytones. The prot tonic vowel is, in almost all cases, the final sound of the syllable, the succeeding consonant being drawn over to the following, where it was possible. (I leave entirely out of consideration the cases where in classical Latin the prot tonic syllable was formed by *i* or *u* in hiatus, as in *medianus*, *Januarius*. Such vowels were reduced to consonants at a very early date, and can never be counted as a syllable in Vulgar Latin.) Before a single consonant, then, or before a group which could commence the following syllable, according to the laws of syllabic division in Latin, we should expect, *a priori*, the reduction of the preceding prot tonic syllable to be regular and complete in every case. As, however, the principles of Latin syllable-division presented by the grammarians, have been disputed, I will reserve the instances where the prot tonic stands before a group of consonants for separate discussion.

The regular and effective action of the law of prot tonic syncope is very often disturbed by various analogical influences. These effects are naturally more conspicuous in the case of the prot tonic syllable than in that of the ultima. All derivatives of adjectives from substantives (*cf.* *amoros* : *amor*) or the reverse (*cf.* *amertume* : *amer*) show unmistakably the results of these influences. So also all verb forms, where the stem-accented forms are generally levelled for the whole system. This principle has already been fully recognized by Darmesteter and others, and it is not necessary to insist upon it here. I shall have occasion many times to call attention to the results of analogy in this discussion. In general, I shall leave out of consideration all words which show plainly a levelling process, like *amoros*, for example; where the simplex is present, it is unnecessary to call attention to its influence on the derivative, or to consider the latter as a real "exception" to the laws of prot tonic syncope. Furthermore, all words which are due to the creative power of

the French language itself, which are not derived plainly from Vulg. Lat. substrata, but which are made with the help of various suffixes during a later period of development, need not be considered in this discussion. They will be taken into account only so far as they exhibit the action of the phonetic laws, or show striking deviations from them.

A further limitation must be established for most words compounded with prefixes, prepositions, etc., especially verb-forms. The prefix has been treated in nearly all cases as an independent word; the verb-stems after it underwent the usual development without regard to the form of the foregoing prepositions. Only such words as show evidently that the feeling for the compound had been lost in Gallic Vulgar Latin, like *computare* : *conter*, **ab-secare* : *oscher*, are entitled to be considered as simple words.

Of great importance in the history of the pretonic vowels is the theory of sentence-doublets, especially as applied to those forms which contain one of the vowel-like consonants before the tonic vowel. I have already shown, in connection with the final syllable, that the liquids and nasals, owing to their peculiar nature, are capable of functioning either as vowels or consonants. They are true syllabics, and from their voice an indefinite vowel, especially in slower, more deliberate utterance is often developed. Conversely, in certain cases, where there is in the stress-group a quicker, more rapid pronunciation, there results absorption of the unaccented vowel by the vowel-like consonant, which in its turn, if the surrounding sounds favor it, resumes the rôle of a pure non-syllabic. These two processes work reciprocally, and each reacts on the other. That at any period doublets existed for all words with a protonic liquid or nasal is difficult to affirm definitely. Such might have been the case for the unconscious, spoken language, and the by-forms have left unmistakable traces in the orthography even in modern French. Compare for instance the modern *souverain* (*superanum*, O. Fr. rarely *sovrain*), with the modern *serment*, earlier *sairement* (*sacramentum*). Both apparently contradict the strict law of syncope, one in the retention of protonic *e*, the other in the loss of protonic *a*. We shall see that such doublets have left greater traces in the O. Fr. orthography than is generally supposed.

The physiological causes on which these apparently contradictory tendencies rest, are easily apprehended. The syllable with the tonic accent received under the Gallo-latin accentuation a compound "zweigipflige" accent, as a result of the greater stress given to it, which resulted in the corresponding reduction of the unaccented syllables. From this original accent character has been explained the spontaneous diphthongation process prevailing in Old French. When now such a syllable contains a consonantal liquid or nasal, and a compound stress accent is given to it, the single sounds of the syllable may be so divided that one of the moments of greatest stress ("Nebengipfel") falls on the liquid or nasal. If this moment of greatest stress falls on the beginning of the formation of the liquid or nasal, then will follow a period of slighter stress before the second "Nebengipfel" falling on the vowel of the syllable. Now let these moments be more sharply divided; the first part of the liquid then becomes semi-syllabic in character, while its close remains consonantal, functioning as the non-syllabic of the weak syllable thus formed. If then the narrowness of the *l*, *r* contact be widened, a syllabic vowel-glide is easily developed between the foregoing consonant and the following *l*, *r*, which may be widened till a complete syllable with a new vowel results. Whether in French, however, this "svarabhakti" ever went farther than the development of a sonant liquid or nasal from original consonantal *l*, *r*, *m*, *n*, is doubtful; the orthography *er*, *el*, etc., may at all periods have expressed nothing more than *l*, *r*, (*soverain* = *sourain*). The development in the case of *serment* is exactly the converse of this process. Here the stress of the original vowel was transferred to the preceding liquid (*sairrment*), which in turn lost all syllabic function, as it stood after a syllable of weak stress. (cf. for all these processes Siever's *Phonetik*, p. 270 ff.) Probably at first all these developments have been conditioned by the position of the syllable in the stress-group; if it had a more independent character, with greater stress, then "svarabhakti" resulted; if, on the other hand, it stood in closer union with neighboring syllables, and had lesser stress, then non-syllabic *l*, *r*, *n* would be the rule. (cf. the explanation of the future forms *donrai*, *menrai*, etc., by Neumann: *Littbl. f. Rom. u. Germ. Phil.*, III, 467).

This explanation, whereby the non-syncopated (with original *e, i, o, u*), and syncopated (with original *a*), doublets are classed as mutually reciprocal forms due to relations of sentence-accents and stress in the French period, harmonizes with the general theory of syncope. I would assume that for pretonic *e, i, o, u*, the syncope was originally complete. This accords with the theory of Darmesteter, who assumes that the shorter forms are the primitive and normal, and that the longer are due to a later "adoucissement." The longer forms, like *soverain*, are then due to later relations of accent in the stress-group, which probably prevailed to a greater or less extent at all periods of the language. The grammarians of the sixteenth century attest that protonic "feminine" *e* in the neighborhood of *l, r*, was but weakly pronounced, and give many examples of doublets, with and without syncope. Such are, for example: *ouvriere* : *ouverriere* : *ouverage*, *chevereul* : N. Fr. *chevreuil*, *chevron* : *cheveron*, *lappreau* : *lappereau*, *courtier* : *courtier*, *carreler* : *carler*, *hobreau* : *hobreau*, *horeloge* : *horloge*, *ourler* : *ourreler*, *armelin* : *armlin*, etc. cf. Thurot, *La prononciation fran^c*, I, p. 143 ff).

In view of these peculiar relations, I propose to treat those words and word-forms with protonic liquid or nasal in a separate section. These processes, svarabhakti or syncope in the neighborhood of the vowel-like consonants, are found in all languages. The effects, however, as in French, are manifoldly disturbed by levelling and analogy. For examples of Svarabhakti (Anaptyxis) in the Indo-European languages, see Brugmann, *Grundriss*, I, p. 469 ff. Examples which are strictly comparable with the absorption of a vowel before or after *l, r, n* in French, are found in many words in New High German, where the initial vowel has been lost before a liquid or nasal, as in

<i>Glaube</i>	:	O. H. G.	<i>giloubo</i> ,
<i>gleich</i>	:	" "	<i>gilt^h</i> ,
<i>glied</i>	:	" "	<i>gili^d</i> ,
<i>Glimpf</i>	:	" "	<i>gilimpf</i> ,
<i>Glück</i>	:	M. H. G.	<i>gelucke</i> ,
<i>Gnade</i>	:	" "	<i>ginade</i> ,
<i>grob</i>	:	" "	<i>gerob</i> ,
<i>bleiben</i>	:	" "	<i>bilben</i> ,
			<i>draus</i> : <i>daraus</i> , etc.

Examples of the “ svarabhakti ” vowel, which occur in Old High German, are to be distinguished from the cases in French in that this development occurs at the end of the accented syllable, instead of the beginning. *cf.* for instance Old High German *alah, beraht*, from *alh, berht*, with Fr. *sovraint : soverain*.

In Latin such double forms must have existed in great numbers, although as a rule the conservative literary language has preserved but one of them. I have already cited the development of a “ svarabhactic ” vowel in the suffix *-culus*, I. E. *tlo*. The frequency of the “ syncopated ” forms in the inscriptions (*cf.* Schuchardt: *Vocalismus*, II, 404), indicated for the popular language the prevalence of these doublets. Other examples are *populum*, Old Latin, *poplom*, and especially in Greek loan-words *mina*, Gk. *μνᾶ*; *techina*, Gk. *τέχνη*, *drachuma*, Gk. *δραχμῆ*. Notice moreover Latin developments like **en-cri-tas, en-cr-tos, incertus, *acridhos : acerbus, *fadi : faculi, *stabli : stabuli, *pendlos : pendulus*. (*cf.* for these forms Brugmann, *Indg. Forsch*, IV, 225 ff.)

In Vulgar Latin such examples increase in number, and are found side by side with the original forms, without the “ svarabhactic ” syllable. (*cf.* Schuchardt, *Vocalismus*, II, 398 ff.; Lindsay, pp. 71, 93, 145, 175; Stoltz, *Lat. Gram.*, p. 277). Compare moreover inscriptional forms like *magist(a)ratum, lib(e)ras, (=libras), con(i)sul, nuc(u)leum, T(e)rebonio, c(i)ribrum, c(a)laudianus, Mith (a)ridaticis*, etc.

The Vulg. Lat. accent shifting in original proparoxytones with mute + liquid in the final syllable is to be traced back to this development of a “ svarabhactic ” syllable; thus *tonitru* became *tónitrru*, after which the accent was shifted in accordance with the prevailing accentuation to *toníttru*, from which Fr. *tonnerre*. And the diphthongation of accented vowels before mute + liquid, as in *patrem : père*, has been ascribed by Meyer-Lübke to the same cause. (*cf.* *Rom. Gr.*, I, 251). I have already called attention to the fact that the opposite process, syncope in the neighborhood of liquids and nasals, is common in Vulg. Lat. Thus of the examples of pretonic syncope given by Schuchardt, pp. 421–443, eighty-five are instances of vowel-loss in the neighborhood of a liquid or nasal, only ten in the neighborhood of pure consonants.

The traces that these processes have left in French will be cited in detail later. Here, however, I may call attention to instances where the development of a “*svarabhaktic*” vowel from the voice of the vowel-like consonants is clear and unmistakable. Such are, for example, many loan-words from the Teutonic languages with initial mute + liquid or nasal.

Low German <i>slop</i> :	French <i>salop</i> ,
Dutch <i>sloep</i> :	“ <i>chaloupe</i> ,
Dutch <i>smak</i> :	“ <i>semaque</i> ,
Low German <i>snau</i> :	“ <i>senau</i> ,
High German <i>schnappahn</i> :	“ <i>chenapan</i> ,
Teutonic <i>hnapp</i> :	“ <i>hanap</i> ,
Teutonic <i>hring</i> :	“ <i>harangue</i> ,
Anglo-Saxon <i>hripan</i> :	“ <i>hureper</i> ,
Modern High German <i>kliben</i> :	“ <i>galipot</i> (?),
Old Norse <i>knifr</i> :	“ <i>canif</i> ,
Modern Low German <i>knijpe</i>	“ <i>guenipe</i> ,
Swedish <i>vranger</i> :	“ <i>varangue</i> ,
High German <i>willkommen</i> :	“ <i>wilecome</i> .

Note also Gk. *γράθος* : *granache*, Gk. *πράττω* · *bareter*. (cf. Körting, *Lat. Rom. Wörterbuch*). Arab. *almatráh* : *materas*, Pers. *Kaschmir* : *cachemir*.

I pass now to the consideration of the various protonic groups.

Words with protonic a. As in the case of the ultima, protonic *a* always persists in Old French under the form of “mute” *e*. For examples see Darmesteter. I shall consider here only such words as exhibit apparent “exceptions” to this phonetic law. As in the case of final *a*, the preservation of protonic *a* is to be explained through its greater sonority, as contrasted with the other vowels.

All words with protonic *a* retained as such, not weakened to *e*, are either borrowed, or due to some analogical influence. Examples of the first class are *creatorem* : *créateur*, *apparatus* : *apparat*, *fondatorem* : *fondateur*, *cyparissus* : *ciparis*, also O. Fr. *ciperis*, *regular*, *panaricum* : *panaris*, **cingulatorium* : *cingladoir* from the Provencal. Ital. *splanata* : *esplanade*, etc.

Examples of the last class, to choose a few out of many, are *caballarium* : *chevalier*, cf. *cheval*, **companicum* : *companage*, cf. *compaign*, **ex-sarritare* : *essarter*, cf. *essart*, **coraticare* : *coragier*, cf. *corage*, **battaliarium* : *bataillier*, cf. *bataille*, etc.

Here I may call attention to the fact that several words which in New French are treated as compounds, in the older text often show the development of simple words. For example, M. F. *apanage* is a derivative of the old verb *apaner*, which goes back to a V. L. **ad-panare* : *apaner* is the form of the compound word, *panare* being the simplex. But, besides these, we find (cited by Godef. from *Amadis de Gaule*) *apener* and *apenage* (from a text of 1297 in Godef.), where the preposition has united firmly with the verb and the *a*, become protonic, is regularly weakened. Compare also the old form *compenage* (Renart) beside *companage*, the last due to analogy, the first regular.

It is surprising that certain words in O. Fr. which are compounded with the apparent prefix **cata* (from the verb *captare* : *catar*, according to Körting, *Lat. Rom. Wörterbuch*. This verb does not exist in French, except in the compound *acheter*, which shows regular weakening), preserve as a rule the second *a* unweakened. **cata-lectum* : *chaalit* or *kaalit*, *cata-*faltum* (from Ger. *balko*) : *chaafalt* (also more regular *chadefalt*). An explanation is difficult, unless we suppose that this prefix was borrowed. Another difficult form is **scarabellum* : *escharavel*, N. Fr. *écharaveau*. It shows throughout a regular development, except for the protonic vowel alone. Is this also a Prov. loan-word? *adamantem* : *aimant*, with change of protonic *a* to *i*, is hardly a popular word. cf. Thomas *l.c.*

I take up now the consideration of words with protonic *a*, which show a complete loss of the last. This occurs in the neighborhood of a liquid or nasal, and is to be ascribed to the tendency to absorption of the vowel-element by the vowel-like consonants in a more rapid tempo of pronunciation. In most cases, the shorter forms are the younger, and are first formed in the specific French development; in others (*vaslet*, etc.) the syncope has existed from the earliest period. Doublets are present in the majority of instances.

Examples, *ambas-partes* : *ampars*, which may be influenced by the form *andous*, which in later O. Fr. was used for both genders. *sacramentum* : *sairment*, which first appears in the Thirteenth Century; and its compound *aserementer* : *asermenter*, etc., *alabastrum* : *albastre* : *alabastre*, also late, but cf. the Vulg. Lat. *albastro*, in Schuchardt's *Vocalismus*, II, 427. **albarum* : *alberoi* (Amis et Amiles, 1099), *albroi* (from a text of 1344 in Godef.). here the shorter form is the earlier. Gr. παρττω : *bareter* : *barter* (cited by Godef. from a text of 1373) **arca-balustum* : *arbelest* : *ablett* (cited by Godef. from Scheller Lexiq, 95), *atramentum* : *airement* : *airment*, *illalamella* : *alamelle* (for *la lamelle*) . *almelle* (cited by Godef. from G. Durant). *cappa* + *lettus* : *coupelet* : *coplet* (Aliscans). *cūpa-retta* : *couverete* · *cuvrette* (cited by Godef. from a text of 1462), **denariata* : *deneree* : *denree*; *comparare* : *comperer* : *comprer*, *separare* : *severer* : *sevrer*; these may be due to the analogy of the stem-accented forms, *cōparo* : *compre* cf. Meyer-Lübke, *Rom. Gr.*, II, 620). Darmesteter assumes a Vulgar Latin *seperare*; in this case the words should be placed in the category with "svarabhaktic" prot tonic. **curatarius* : *coretier* : *cortier*. cf. Horning (*Ztschr. f. Rom. Phil.*, XIII, 325), who regards it as a derivative of *currere*. But *coretier* and Prov. *coratier* favor the etymon of Diez; likewise *coreterie* : *corterie*, **excaracionem* : *eschareçon* : *escharçon*, *quar tarantia* : **quarterance* : *quartrance* (cited by Godef. from a text of 1274), so *quarteron* : *quartron*, *quarteruel* : *quartruel*, etc. **fabariola* : *faverolle* : *feuvruelle*, **deretranarius* : *derenier* : *dernier* (should give **dertrenier*, cf. *infra deerain*). *ipsa-illa-hora* : *epslor*, *mirabilia* : *mereveille* : *merveille*. The first is very rare. Darmesteter proposes **miribilia* by the analogy of *mirificus*, but the form *mereveille* contradicts this. cf. Meyer-Lübke, *Rom. Gr.*, I, 275. Compare further the derivatives *mereveillable* (Gir. de Ross), *mereveilliere* (Benoit), *sinapillus* : *seneveil* : *semveil*, cf. Cohn, *Suffixwandr*, p. 51). **balsamare* : *balsemer* : *balsmer*. This may be influenced by the stem-accented forms *balsamat* : *balsme*, *calamellum* : *chalemel* : *chalmel*, cf. N. Fr. *chalumeau*, regular, **calaminus* : *chalmin*, never **chalemin*. **fimaretum* : *femeroi* : *fembroi*, **vassalettum* : *vaslet*, never *vasselet*, but cf. *vasselage*.

ferramentum : ferrement, (cited by Godef. from a text of 1391), **fortalitia : forteresse* (also N. Fr.) : *fortresse*. Here the shorter form is earlier (Dial. St. Greg. in Godef.) **loraminarius : lorenier* : *lormier*, (Dit. de la Queue de Ren. in Godef.) Possible this example does not belong here; it will be discussed later under those with three pretonic syllables. Kelt. *garra*, therefrom *jarretier* : *gartier* (Froissard), and the verb *esjareter* : *esjarter*, (chart of 1474 in Godef.) O. H. G. *mazar* : *masdre*; as derivatives *maderer* : *madrer*, *maderiner* : *madriner*; the shorter forms may have been influenced by *masdre*. **putidarellus* : *puterelle* : *putrelle* (Nic. de Troyes in Godef.), *hasta-rellus* : *hasterel* : *hastrel* (Warrin, Chronic d' Angl in Godef.); **materiamen + aticum* : *marrenage* : *marnage*, (cited by Godef. from texts of the Fourteenth Century); *materiamen + arius* : *marrenier* : *marnier*, (cited by God. in a text of 1507); *mappa* : *nappe*, therefrom *naperon* : *napron*, (cited by Godef. from the Recreat. des divers amours); **paramentum* : *perement* : *pairment*, and its derivative *parementer* : *parmenter*, (from a chart of 1241 in Godef.); **saccalettum* : *sachelet* : *saclet*, (from a text of 1268 in Godef.); *costa-*rettum* : *costeret* : *costret*, (cited by Godef. from a text of 1458); **thymiamonium* : *timoine*; **terraticum + are* : *terragier* : *tergier*, (cited by Godef. from Picard texts of the Twelfth Century). The shorter form is here the earlier. It is interesting as showing that, even when sustained by analogy, *a* could be absorbed.

**bovariolum* : N. Fr. *bouvreuil*, *calidaria* : *chaldiere*, therefrom *chalderon* : N. Fr. *chaudron*. Such double forms are especially frequent in words with the accent suffix *ia*, which has been added to substantives in *arius*. A new suffix, *erie*, is formed thereby, (cf. Meyer-Lübke, *Rom. Gr.*, II, 453), the longer, unsyncopated form of which is generalized in New French. But in the old language we find *correterie* : *cortrie*, (from a text of 1281 in Godef.) from *coretier*; *fusterie* : *fustrie*, (Froissard) from *fustier*; *fourrierie* : *fourrie*, (from a text of the Fourteenth Century in Godef.) from *fourvier*, *courrierie* ; *courrie*, (texts of the Fifteenth Century in Godef.) from *courrier*; *avouterie* : *avoutrie*, (Froissart) from *avoutier*; *batterie* : *battrie*, (cited by Godef. from a text of the Thirteenth Century) from *battier*; *plorerie* : *plorie*,

(Gaufrey in Godef.) from *plorier* : *poeterie* : *poetrie*, (cited by God. from Boëce, *de Consolacion*) ; *rusterie* : *rustrie* (Rabelais) from *rustier* ; *sarreterie* : *saretrie* (Rabelais) from *sarretier* ; *nollerie* : *novelrie* (from an Angl. Fr. text in Godef.) from *novelier* ; *maladerie* : *maladrie* (Trahiss. de France, in Godef.) ; *mananderie* : *manandrie* (Chev. au Cygne, in Godef.) from *manandier*.

The same phenomena are met with in words with the suffix N. Fr. -*eresse*, the feminine to -*eör*, (cf. Meyer-Lübke, *Gr.*, II, 414) ; the *e* in *eresse* represents the stem-ending *a* generalized in *a-torem*, *a-trissa*, etc. *Chanteresse* : *chantresse*, *corteresse* : *cortresse* (from a Bible transl. of the Fifteenth Century in God.) ; *donateresse* : *donatresse*, (text of 1472 in God.) ; *orfeveresse* : *orfevresse*, (text of the Sixteenth Century in God.) ; *revenderesse* : *revendresse*, (text of the Fourteenth Century in God.) ; *semoneresse* : *semonresse*, (text of 1312 in God.) ; *flateresse* : *flatresse*, (D'Aubigny in Godef.) ; *fondateresse* : *fondatresse* ; *moiteresse* : *moitraice*, (texts of the Thirteenth Century in God.) ; *recomanderesse* : *recomandresse*, (text of the Fifteenth Century). For other examples in names of place, cf. Lindström, *op. cit.*, p. 62.

It will be seen from the above examples that this syncope, or absorption, in words with liquids, is generally late, belonging to a distinctly French period of development. Nevertheless, some words (*vaslet*, *merveille*, *fembroi*, etc.), go back to the earliest texts, showing that the tendency was present from the beginning, (cf. Meyer-Lübke, *Gr.*, I, 275). It is probable that many more of these doublets existed than the fixed orthographical tradition admitted into the texts. We shall see that the same variation exists in words with protonic *e*, *i*, *o*, *u*, though here the syncope was probably original and regular. The shorter forms, with syncope of *e*, from *a*, are undoubtedly due to the position of the word in the stress-group, and to the tempo of the spoken language. To the same principle is due the shortened form of futures of the first conjugation, like *donrai*, *menrai*, *larrai*, etc. (cf. Neumann, *l.c.*, and differently, Körting, *Formenbau des franz. Verbums*, p. 257). Compare also the form *frai*, for *ferai*, itself due to a reduction of *farai*, in the stress-group *jò fàrái* (cf. G. Paris, *Rom.*, XXII, 570.)

All other words without liquid or nasal, which show syncope of prot tonic *a*, are probably due to analogy. (I do not take into account those words with pretonic *e* < *a*, in hiatus which have undergone a comparatively late reduction. For these see Hossner, *Zur Geschichte der unbetonten Vocale im Alt- und Neu-französischen*. Diss. Freiburg, 1886.) Such examples are very rare. I may cite : **gabatellum* : *jadeau*, which may go back to a Vulgar Latin **gautellum*; cf. *gabata* : **gauta* : *joue*, though in that case the retention of the dental is difficult to account for; more probable to me appears Merkel's (*Die germ. Elemente in der französische Sprache*, p. 57), etymon, Frank. *gabita*; a **gabitellus* would give regularly *jadeau*.

**ūsatile* : *ostil*. This word is otherwise irregular (initial *ū* > *o*). See also Meyer-Lübke, *Gr.*, I, 278, who sets, as the Vulgar Latin ground form **usitile*. Perhaps it has been influenced by the related verb *ostillier* (possibly < **usatiare*), where the fall of the *a* in the second pretonic syllable may be regular (cf. infra).

Interesting is the doublet *puisse-di* : *puisdi*; in this compound the first element is evidently *postea*. It supports Karsten's (*l.c.*) theory of the origin of *puis* (ante-vocalic form of *postea*) in opposition to Schuchardt's, (*Ztschr. Rom. Phil.*, XV, 240), who assumes Vulgar Latin *postius* as the etymon; *monasterium* : *mostier*. Darmesteter assumes a Vulgar Latin form **monisterium*, which has followed the analogy of *ministerium*; this explanation has been generally accepted.

A last question connected with protonic *a* concerns the date of the weakening to *ɛ*. In words with the suffixes *-tionem*, *-sionem*, etc., in which the palatal group develops a parasitic *i* before the consonant, the *a* of the stem generally appears unweakened, and unites with the parasitic *a* to form the diphthong *ai*. Examples are very numerous.—*occasionem* : *ochaison*, *venationem* : *venaison*, *ligationem* : *liaison*, *separationem* : *sevraison*, etc. (cf. for this suffix, Meyer-Lübke, *Gr.*, II, 539. Cohn, *Suffixwandr.*, p. 123 ff.)

Is this conclusion correct? We have no data for the chronology of the weakening of *a* > *e*, nor for that of the development of parasitic *i*, both being antecedent to the earliest monu-

ments. (On *a* for *e* in the Strassburg oaths. *cf.* supra.) Unaccented *a* is not weakened in Provençal or Franco-provençal, nor in the extreme southwestern French dialects, phenomena which indicate a comparatively late date. If the reduction had not been completed at the time when parasitic *i* was developed, then the resulting diphthong, with its greater sonority, would probably escape the weakening which affected simple *a*. Nevertheless, there are some French forms which seem to contradict this hypothesis. Especially interesting is the word **bellatiorem. bellezour* of the Eulalia. If the above supposition be correct, we should expect **bellaisor*, a form which is not found, though later we find *belleisor*, etc. (*cf.* Koschwitz, *Commentar*, p. 70). Moreover, in certain forms with protonic *a* before intervocalic palatal *c*, which is treated exactly like *ti*, we find the same weakening; for example: *Bellovacensis : Belveisis : Beauvoisis, Cameracensis : Cambroysis*, also *cf. palatiu+inus:palesin*, beside *palasin*, a learned form. How is this apparent contradiction to be explained? I believe that it arises from the fact that we have here to deal with a suffix. Thomas (*l.c.*) has shown that, for Provençal at least, some suffixes had a quasi-independent existence; and underwent the same modification as simple words. In that language the suffixes *-amentum, -ementm, -imentum*, having become respectively *-amen, -emen, -imen*, were preserved in this form and attached to verb-roots. I shall consider this hypothesis more in detail in connection with other suffixes; here it seems to remove a difficulty. When *-tionem* is attached to stems ending in *ɛ* or *i*, instead of the regular syncope (as in *boisson, parçon*) in the majority of cases an uncontracted suffix-form *-oison, -ison* appears. This can only be explained with the aid of Thomas' theory. Applying this hypothesis to *a*-stems, if the suffix *-ationem*, generalized for stems of the first conjugation in the same way as *-amentum, -atorem, etc.*, in Prov. developed independently, we should expect this (protonic) *a* to be treated like initial *a*; and this is the case. (*cf. rationem : raison*). Moreover, the form *-aison* is not the only one which appears attached to verb-stems of the first conjugation; by-forms in *-oison* are much more common and wide-spread; *-ison* appears to be

mainly confined to the Eastern dialects. I have collected the following examples of by-forms in *oison* that are found with original *a*-stems.

abitoison, acordoison, afaitoison, airoison, arrestoison, assembloison, avooison, chaçoison, chaploison, charpontoison, coltivoison, consir-oison, coutoison cornoison, cortoison, costoison, covroison, crioison, delitabloison, delivroison, demoroison, dementoison, desbaretoison, desertoison, doloison, donoison, dotoison, enchaitivoison, enchantois-on, encombroison, envenimoison, escusoison, esgardoison, fioison, foloison, formoison, getoison, livroison, mangeoison, membroison, mostroison, ploroison, rovoison, semoison, sevroison, trenchoison, vengeoison.

Of by-forms in *-ison* I have found the following : *araismison, atargison, enchalcison, espargnison, herbergison, membrison, meü-rison, mostrison, plorison, vengison*. (For citations see Godef.)

The by-forms in *-oison* may be regular (*cf. Beauvoisis*, etc.), with weakening of *a* to *e*, before formation of the diphthong *ei-oi*; but this does not account for the forms in *-ison*. It seems perhaps simpler to assume that the forms peculiar to the different conjugations have been confused and appear indifferently, without regard to the original ending of the stem. This view is confirmed by the fact that *aison* is found with stems of the second, third, and fourth conjugations, where it must be due to the analogy of stems of the first. See Cohn (*Suffixwendl*, p. 123, ff.), who admits the possibility of a regular reduction of *-aison* to *-ison* (with reference to Neumann, *Laut. und Flexionslehre*, p. 53), but in view of the fact that such reduction is never met with except for these suffixes and for verb-endings (*cf. raison, saison*, etc., always with *ai*) this supposition is little probable.

Some words which have this, or a similar suffix, but by the side of which we find no corresponding verbs, seem to present difficulties. For example : *occasionem* : *ochaison* : *ochoison* : *oche-son* : *achaison*, etc. **lunationem* : *lunaison* : *lunoison*. *corbison*, *cf. corbe* (from **corba* for *corbem*). *guambaison*, *guambison*, (from Teut. *wambeis*.) The variation in form of *ochaison* shows how great the confusion in the various suffixes was. Beside *lunaison*, although no verb, **luner* is present, we find other deriva-

tives like *lunatus* : *luné*, so that the *a*-form of the suffix was established by analogy. *corbison* and *guambaison* are undoubtedly late French formations.

An isolated form of the suffix occurs in the word, **pedationem* : *peason*, cf. Prov. *peazos*. Another difficult form is *eschareçon* : *escharçon*. The simplex is *escharas*, for which a vulgar Latin etymon **excarratum* is usually given. (cf. Körting, 2906) from Gk. Χαράξ. This, however, should give **escharais*, cf. *palais*. So a Vulgar Latin **excarracium* is preferable ; from this **ex-carracionem* would give regularly *eschareçon*, from which *escharçon* by absorption of the protonic *e* by the liquid. A by-form *escharisson* shows suffix-change.

The hypothesis presented above is based on the supposition that protonic *a* was weakened to *e* before the production of a parasitic *i* from the palatalized consonants. The possibility is not, however, excluded that the latter process may have occurred first, but more exact data as to the chronology of the development of parasitic *i* are needed. Other words which show protonic *a* intact, or in union with *i* (sometimes merely graphic, as before *l*) are due to analogy. Such are, for example, *bataillon*, *bataillier*, etc., cf. *bataille* ; compare this with **nugaliosus* : *nueillos*, with regular weakening. **companionem* : *compagnon*, cf. *campaign* (= *compañí*). Compare O. Fr. *compenage* and *companiensem* : *champenois*. **araneata* : *araignée*, cf. O. Fr. *araigne*, **suffractosus* : *soffraitos*, cf. *soffrait*, etc.

e, i, o, u, protonic.

I. Before simple consonants, not nasals or liquids. In this case the syncope occurs with the utmost regularity and completeness. The preservation of the protonic vowel before a single consonant indicates invariably either borrowing from the classical Latin or an analogy of some sort. Also after double consonants and consonant-groups, the fall of the protonic is the rule, in exact correspondence with the history of the final vowel in the same position. As we have seen, the ultima regularly falls, except after consonant-groups whose second element is a liquid or nasal ; in which case this element persists as the syllabic of the final syllable. The protonic syllable in the same circumstances is retained. The cases (not numerous) where the

prot tonic vowel follows the group-consonant + sonant will accordingly be reserved for separate discussion.

The same considerations of assimilation, which applied to the preservation of the final syllable, are also applicable here, and I shall not enter more nearly into them, except to confirm the fact of the reduction of the prot tonic after such consonant-groups. In each case after groups which could not be pronounced without a distinct glide (*ct*, *pt*, *ps*, etc.) the prot tonic was probably retained till after the assimilation of the first mute.

Examples will be classified according to the consonant before the prot tonic vowel.

1. after *l.* **alibanus* : *albain*, **follitatem* : *folté*. **alicunus* : *alcun*, *malefatus* : *malfé*, *bellitatem* : *belté*, *maledicere* : *maldire*, **bullicare* : *bolgier*, **maletolta* : *maltote*, *calidaria* : *chaldiere*, *mal-evatius* : *malvais*, **callidellum* : *chaldel*, **puellicella* : *pucelle*, **colli-bertus* : *culvert*, *pullicenus* : *pulcin*, **culicinus* : *colsin*, **palitonem* : *palton*, *delicatus* : *delgié*, *saliceta* : *salsoie*, *eleemosyna* : *almosne*, *solidare* : *solder*, **filicaria* : *felgiere*, *sollicitat* : *solcie*, **filicella* : *ficelle*, *sollitanus* : *soltain*, **solitivus* : *soltif*, *pollicaris* : *polchier*, *vilitatem* : *vilté*, **e-ad-validare* : *ravalder*, **vallicella* : *valcele*.

Exceptions.—The following verbs have been levelled to the stem-accented forms : **al-lūcare* : *alucher*, *salūtare* : *saluēr*, *elū-sare* : *eluser*, *pilūcare* : *peluchier*, *follīcare* : *foloiiier*; these verbs in -*icare* have undergone an accent-shifting, *fōllīco* > *follico*, according to the analogy of compounds like *implīcō*, with recomposition in Vulgar Latin, cf. Darmesteter, *l.c.* For another explanation, Vulgar Latin *idiare*, < Gr. *ἴδιν*, see Schuchardt, *Littbl. f. Rom. u. Germ. Phil.*, V, 62; Meyer-Lübke, *Gr.*, II, 610. This accent-shifting occurred in many verbs in -*icare*, in some of which double forms are found ; so also **dolicare* : *doloiiier*.

Later, specially Fr. formations, are *foleté*, *vileté*, etc., with the suffix *-té* attached to the feminine form of the adjective. **vilū-tellum* : *veluel*, levelled to *velu*. **allevamen* : *alevain*, is difficult. It may have been influenced by *lever*.

The following are words of purely learned origin : *diligent*, *olifant*, *filigrane*, *filipendule*, *militaire*, *politesse*, *politē*, *qualité*, *velléité*, etc. *maledicere* · *maleir* belongs to the same category ;

although it was borrowed at an early date, before the outfall of intervocalic *d*. *molochinus* (Gr. μολοχίνη) : *molequin* is apparently a loan-word ; the later form *morquin* shows regular syncope.

2. After *r*. *arepennis* : *arpent*, *aurichalcum* : *archal*, *caerefolium* : *cerfuel*, **aurifaber* : *orfèvre*, *claritatem* : *clarté*, *caritatem* : *cherte*, **carricare* : *chargier* (also *charoier*, with accent-shifting), *clericatus* : *clergié*, *cerebellum* : *cervel*, *corrogata* : *corvée*, *fecitatem* : *fierté*, **naricare* : *narguer*, *puritatem* : *purté*, **viridura* : *verdure*, **ex-sarritare* : *essarter*, **veredare* : *verder*, *vreder*, *veritatem* : *verté*, *vreté*, *Verodunum* : *Verdun*.

Exceptions.—The following verbs are levelled to the stem-accented forms : **arrēdare* : *arroier*, **arrōsare* : *arroser*, **arrīpare* : *arriver*, *marītare* : *marier*, **arrīsare* : *arriser*, so *marriage*, etc. *claricare* : *claroier*, with accent-shifting and levelling ; *durete*, *rareté* are late and probably learned. Pure loan-words are **barigeldus* : *barigel*, *diriger*, *charite*, *charitage*, *verité*. *territorium* : *terroir*, is probably levelled to *terra* ; **auri-pellem* : *oriseau* is apparently half-learned ; cf. Prov. *aurpels*.

3. After a nasal. *bonitatem* : *bonté*, **clinicare* : *dingier*, *plenitatem* : *plenté*, *comitus* : *comté*, *primicerius* : *princier*, *domitare* : *donter*, **limitarius* : *lintier*, **cannicella* : *chancelle*, **ramicellus* : *raincel*, **comitores* : *contors*, *rumigare* : *rongier*, *enecare* : *engier*, *sanitatem* : *santé*, **im-prūnūtare* : *emprunter*, **semitarius* : *sentier*, **limitellum* : *lintel*, *tinnitare* : *tenter*, *penicellum* : *pincel*, **trinicare* : *trenchier*, **ramicarius* : *ranchier*, **vanitare* : *vanter*.

Exceptions.—Verbs with levelling are : **admētare* : *amoier*, **banicare* : *banoier*, **manīcare* : *manoier* : *manier*. Loan-words.—*benedicere* : *beneîre*, *beneîstre* ; cf. *maldire* : *maleîr* ; this word has been conjectured to rest on a Vulgar Latin *benadicere* (cf. Ital. *benadetto*), but in view of the further irregularity in the endings, it seems to me preferable to regard it as a loan-word ; so *beneoit*, *beneance*, *beneisson*, etc. *poenitere* : *peneîr*, *penance*, etc. According to Cohn, *Suffixwandr.*, p. 78, regular, but cf. *repentir*. Like the foregoing it is an early loan-word. *coemeterium* : *cimetière*, and likewise *fumiger*, *manigance*, *primitif*, *unité*, *vanité*, etc. *innovâre* : *enlever* is either levelled or felt as a compound ; the latter is more probable. *primu-saltum* :

primesaut, but O. Fr. *prinsalt*, regular. In N. F. the learned form of the adjective is restored, in accordance with the simple *prime*. *fumisterrae : fumeterre*; ni this the gender and form of the first element of the compound seem to have been influenced by the second. **monetarius : moniēr*, may have been influenced by *monēta : monnoie*.

Examples of the secondary development of a prot tonic syllable from the voice of *r, l, m, n*, in this position are exceedingly rare. I have been able to find only the following instances: *vergondeux : inveregondeux*, (from texts of the Sixteenth Century in Godef.) probably learned. *parçon : pareçon* (Froissard in Godef.) from *partitionem*. Here the prot tonic *e* is evidently due to the voice of the liquid; if it had followed the analogy of other words with *-tionem*, it would have sounded **partoison*. Possibly also, O. Fr. *galvardine : gale vardine* (Rabelais) belongs here. The etymology is unknown.

All other apparent doublets like *cherté : chereté, folté : foleté, purté : pureté, santé : saneté*, etc., are illusory; the longer forms are the later, but represent new analogical structures with the suffix *-té* added to the feminine form of the adjective.

The contrast between the strict syncope exhibited by the prot tonic in this position, after the vowel-like consonants, and the abundance of doublets and apparently non-syncopated forms when the liquid or nasal stands immediately before the tonic vowel and after the prot tonic, is very striking. The fact is in accord with the explanation of the double forms with the svarabhaktic vowel given above. In the former the vowel-like consonant belongs to the initial pretonic syllable; this syllable has only a secondary accent, and never exhibits the phenomena of diphthongation shown by the tonic syllable. Its stress therefore is not only less in force than that of the latter, but is also simple, uninterrupted ("eingipfig,") so that the vowel-like consonant must retain at all times its non-syllabic function as the final consonant of the syllable. After it the syncope is as regular and thorough as after any consonant in this position; and there was no chance for the production of doublets through "svarabhakti," which is only produced in syllables with a com-

pound accent. On the other hand, when the vowel-like consonants stand immediately before the accented vowel, they share the accentual character of that syllable compound, and thus often assert themselves as a syllabic.

In fact, the tendency to syncope, except under these last conditions, is so strong that the protonic vowel is frequently "absorbed" after a liquid or nasal in some by-forms, while it is otherwise generally retained, as derived from *a*, or as the result of analogy. A glance at the list of forms showing syncope of pretonic *a* confirms this; in very many the pretonic vowel stands between a liquid and another consonant (*cf. sairment, albastre, chalmin, cortier*, etc.). Notice also the following forms, strictly secondary where a protonic syllable, originally retained in the derivative through the analogy of the simplex, has been lost after a liquid or nasal; **corruptiosus : corroços* (*cf. carrots*); *correços : corços* (*Fierabras*). The shorter form may be original, as it is undoubtedly regular, but the earlier monuments have *corçoſ* alone. (See the examples in Godef.) These doublets appear side by side in the same text; *cf.* the following examples quoted by Godef. *Trait Cur(e)cuse, dunt le pung fu dorrez. Otinel 115, but Quant Courroucouse li est es poins tornée. Ibid, 550.*

Notice further, *cabareteur : cabarteur* (cited by God. from a text of the Fifteen Century); *cabaretresse : cabartresse*, both are derived of *carbaret, fleurctte*, therefrom *fleuretis : fleutis, fleureter : fleurtér*. *pareil*, therefrom *repareillage : reparlagé, repaireleur : reparleur, repairellier : reparlier*, the earliest example of the syncope given by Godef. is in a text of 1260.

When the protonic syllable begins with the group mute + liquid or nasal, we should expect, following the analogy of the finals, that the syllable would be preserved, the liquid or nasal serving, probably, as the syllabic of the syllable. This seems to be generally the case, though the tendency to syncope, so strong when the vowel-like consonants stood in the true protonic syllable, frequently asserts itself later. This, however, can only occur after the complete assimilation of the consonants standing before the liquid or nasal. Examples: *latrocinium : larrecin,*

larem. The earliest examples given by Godef. are from the Thirteenth Century. Likewise *larronesse* (by analogy to *laron*) : *larrenesse* : *larnesse*, *larronie* : *larnie* (*Dolopathos*), *nutritura* : *norretture* : *norture* (one example in Godef. from the *Lois de Guil.*, I, d'Angleterre). Likewise, *nutritionem* : *norreson* : *norchon* (from a text of 1407 in Godef.), *norrecier* : *norcier* (1407). In this case the unsyncopated forms have been preserved in N. Fr. See also Cohn, *Suffixwandt*, p. 126, who proposes as ground-form **nutrectura*, etc., which is undoubtedly correct. *Patriciacum* : *Perrecy*, **quadrifurcum* : *carrefour*, never syncopated. *petroselinum* : *peresin* : *persin* (N. Fr. *persil*). Earliest examples given by Godef. in the *Chev. au Cygne*. **nigritatem* : *noireté* : *noirté*, *nigrescere* : *noircir*. These have been influenced by *noir*. *lacrimare* : *larmer*, is levelled to the stem-accented forms. **putritura* : *podredure* : *porreture*. N. Fr. *pourriture* by the analogy of *pourrir*. See Cohn, *op. cit.*, p. 126. **vitrinare* : *vernir*, never *verrenir*; see Körting, *Lat. Rom. Wörtenbuch*. *vitrum-glacies* : *verglas*, but cf. *Wereglas* in Littré.

The group *br^v* cons. under went vocalization of the labial element, apparently before the reduction of the prot tonic, so that the latter is generally lost. *fabricare* : *forgier*, but notice *favregier*, (cited by God. from *Vie St. Alexius*) : *favorgier*. **excollubricare* : *escolorgier*. Interesting is the doublet **adrestiare* : *ares-**sier* : *arser*; the last appears only very late (Regnier).

Learned words naturally exhibit retention of the prot tonic vowel always; the consonants are generally not assimilated. Such are, for example *necromantia* · *nigremance*, *ingremance*, *rubricare* : *rebrechier*, *sobreté*, *aigremoine*, *segreier*, etc. On *instrumentum* : *estrument*, cf. *infra*. Verb-forms like the following are due to analogy: *emploiier*, *oublier*, *abregier*, *souplier*, etc.

For the prot tonic group *gn* the same law holds good as for the ultima; the syncope is regular. Assimilation to *ñ* was completed before the reduction of the prot tonic syllable: *cognitare* : *cointier*, *dignitatem* : *deintie*, **stagnicare* : *estanchier*. Exceptions are all loan-words, like the by-forms *dineté*, *dignité*. Likewise *significat* : *senefie*. Compare the various forms, popular and learned, of *signum*.

Similarly regular is the syncope of the prot tonic after *rm*; ex-

amples *firmitatem* : *ferté*, later, half learned *fermeté*. *dormitorium* : *dortoir*; also *dormitoir*, learned. cf. beside this *dormeör* : *dormitorem*, which shows the usual treatment of the suffix -torem.

4. After a dental. a. Simple dental. *ad-id-ipsum* : *ades*, **lodivarium* : *lovier*, **buticellum* : *bocel*, *medicina* : *mecine*, **de-expedicare* : *dépecher*, *medicare* : *megier*, **flattitare* : *flatter*, **nauticare* : *nochier*, *sodicare* : *fogier*, **putidana* : *putaine*, *judicare* : *jugier*, *radicina* : *racine*, *matutinum* : *matin*, **rodicare* : *rugier*, **pediticulat* : *petille*, **sedicare* : *segier*, **peditonem* : *pieton*, **niticat* : *nettoie*, *radicalem* : *regiel*, **radicare* : *rachier*, *Autosiderum* : *Auxerre*.

b. After consonant + dental. *antecessor* : *ancestre*, *monticulum* : *moncel*, **blandicare* : *blangier*, *pendicare* : *penchier*, **ex-pandicare* : *espanchier*, **ponticulum* : *poncel*, *mandūcare* : *mangier*, *vindicare* : *vengier*, *Andegavum* : *Anjou*, **particella* : *parcelle*, **tardicare* : *targier*, **vertobellum* : *vervel*, **cordubensis* : *corvois*, **ad-lecticare* : *allechier*, **coacticare* : *cachier*, *coctitare* : *coitier*, **fleccicare* : *flechier*, *ex-corticare* : *escorchier*, **fusticulum* : *fuissel*, *masticare* : *maschier*.

Exceptions.—The following verbs show levelling: *castigare* : *chastoiier*, **ardicare* : *ardoier*, *mendicare* : *mendier*, **festiccare* : *festoiier*, **undicare* : *ondoyer*, **urticare* : *ortier*, etc. The following are apparently more or less learned in origin: *pradicare* : *preechier*, borrowed early, before outfall of intervocalic *d*. *pentecosta* : *pentecoste*, *testimonium* : *testemoigne*, cf. *tesmoin*, **vertobella* : *vertevelle*, cf. *vervel*. *custodire* : *costeir*, (Roland 2962); these last two forms are peculiar in showing a weakening of prot tonic *o* to *e*; they were probably borrowed very early. *codicarium* : *coëir*; likewise early, *aedificat* : *edefie*, *certificat* : *certefie*, **aestivaticum* : *estiage*; the retention of the *i* is peculiar, particularly since no traces of the adjective *aestivus* : **estif* are found. The retention of the prot tonic vowel in such words as *vestement*, *chasteé*, *saintéé*, *certeé*, *vendeör*, *rieör*, etc., will be considered later, in dealing with the suffixes -mentum, -torem, -tatem, etc.

5. After s. *positura* : *posture*, **clausitura* : *closure*, **lassitatem* : *lasté*, *visitare* : *visder*, **quaesitare* : *quester*, **pinsitare* : *pester*, **consutura* : *costure*. After consonant + s. **laxicare* : *laschier*, **taxitare* : *taster*, **taxicare* : *taschier*, **axicellum* : *aissel*, **ex-acquaculat* : *esgaille*, **absecare* : *oscher*.

Exceptions.—Later formations with *-tatem* like *falseté*, *lasseté*, etc. Loan-words, like *usité*, *visiter*, *deciper* (*dissipare*), etc.

6. After a guttural. *acque sic* : *aissi*, *figicare* : *fichier*, *acque talem* : *itel*, *placitare* : *plaidier*, **cogitare* : *cuidier*, **ex-plicitare* : *esploitier*, **culcitinus* : *colsin* (irregular should become **colsdin*.) *frigidare* : *froidier*, **digitarius* : *doitier*, **longitanus* : *lointain*, *digitatum* : *doitie*, *sanguisuga* : *sangue*, *digitalem* : *deël*; this word has apparently lost intervocalic *g* before the syncope, (cf. *maitre*); **calcedonia* : *caldoine*, learned, but with syncope.

Exceptions.—The following verbs show levelling: **excautare* : *échouer*, **argutare* : *arguer*, **glacicare* : *glacoier*, *recūsare* : *reüsser*. The group of verbs with *-cipere*, *parcevoir*, *recevoir*, *decevoir*, presents difficulties. If levelling had taken place, we should expect to find the diphthong of the stem-accented forms **parcoivoir*, etc. Probably in the consciousness of the folk, a simplex *-cipere*, *-cevoir*, was felt as the organic element of these compounds. Loan-words are *crucé-figere* : *crucifire*, *francheté*, *largeté*, *ricketé*, etc.

7. After a labial. *capitettum* : *cadet*, **movitinum* : *mutin*, *capi-talem* : *chadel*, *navicella* : *nacelle*, **cavicare* : *choyer* (with *avi* > Vulgar Latin *au*), *civitatem* : *cité*, *reputare* : *reter*, **cloppicare* : *dochier*, *navigare* : *nagier*, *dubitare* : *douter*, *subitaneus* : *soudain*, **ex-pavitate* : *espauter*, **bibitoria* : *boitoire*, *gravitatem* : *grieté*, **clavicella* : *clacelle*, **in-debitare* : *endetter*, **debitatum* : *deté*, **probi-care* : *prochier*, *debitorem* : *detor*. After consonant + labial. **bombitire* : *bondir*, *ambitare* : *hanter*, **carpinetum* : *charmoi*, **plumbicare* : *plongier*, *computare* : *conter*, *imputare* : *enter*, **am-bitarius* : *andier*, **orbitaria* : *ordiere*, **servitellum* : *serdele*, *berbicarius* : *bergier*, **ex-torpidire* : *estordir*, **berbica(l)ium* : *bercail*, *hos-pitalem* : *ostel*, *suspicare* : *soschier*, **hospitaticum* : *ostage*, **hispidosum* : *hisdos*.

Exceptions are verbs with levelling. **convitare* : *convier*, *info-dere* : *enfouir*, **advivare* : *aviér*, *navigare* : *navoier*, *refüsare* : *re-fuser*, etc. Loan-words are *advocatus* : *avoué*, **capitaneum* : *chevetaigne*, also, but more rarely, *chapdaine*, *capitellum* : *chapiteau*, **clavo-cymbalum* : *clavecin*, **cordubanum* : *cordoan*, cf. *corvois*, *obedire* : *obeir*, *debiteur*, *envtier*, *refuter*, *servitume*, *diviser*, etc.

Here I may conveniently discuss certain suffixes which begin with a simple consonant. These are especially the suffixes

-mentum, -torem, -turam, ticum, etc. (*cf.* Darmesteter *l.c.*, and *Formation des mots nouveaux*; Meyer-Lübke, *Gr.*, II, 489, 529, 533, 535; Cohn, *op. cit.*, p. 102 ff.) The protonic vowel is retained before these suffixes, almost without exception, so that the O. Fr. forms are *-ement*, *-eör*, *-eüre*, *-eiz*, which are attached to the roots of verbs. Darmesteter assumes that the form peculiar to stems of the first conjugation, that is, with protonic *a*, has been generalized for all other conjugations. Or as Cohn puts it, the suffixes *-itorem*, *-etorem*, *-utorem*, etc., have yielded to *-atorem*, etc. This explanation accords well with the facts of the case, and has found general acceptance. The sister language, Provençal, however, shows a remarkable discrepancy. Thomas' comprehensive essay, already quoted, has demonstrated that in the latter these suffixes are treated as independent words, and that they are fixed in three forms, namely: *-amen*, *-ador*, etc., for stems of the first conjugation; *-emen*, *-edor*, for stems of the second and third; and *-imen*, *idor*, for those of the fourth.

As examples I may cite:

- I. *donamen* : *donador*.
- II. *movemen* : *movedor*.
- III. *batemen* : *batedor*.
- IV. *partimen* : *partidor*.

Thomas suggests that this same principle may have been active during the pre-literary period in French. If so, we should expect *-ament*, *-ement*, *-iment*, as in Provençal; *-ament*, however, is never found, and *iment* is rare. But for some other suffixes, notably *-tionem*, Thomas' hypothesis is admissible.

Likewise, in my opinion, the prevailing form of the suffixes *-tatem*, *-tudinem*, is best explained by assuming that they have developed independently. If such words as *claritatem* : *darté*, **lassitatem* : *lasté*, **bellitatem* : *belté*, etc., followed the strict chronological laws for syncope, we should expect to find forms like **clardé*, *lasdé*, etc., since the protonic syncope did not occur till after the weakening of the tenues to mediae. *cf.* *ordiere*, *visder*, etc. If, however we assume, with Thomas, that in the speech-consciousness of the Gallo-Romans, the suffix *-tatem* developed

as an independent word, the preservation of the tenues is at once clear. So likewise for *-tudinem*, *-tume*.

On the other hand, for the suffixes first mentioned, it seems impossible to escape from Cohn's and Darmesteter's conclusion, that eventually the forms *-amentum*, *-atorem*, etc. of the first conjugation stems have been generalized with regular development of *a* as a prot tonic. This distinction from Provençal probably stands in accord with another difference, namely that in French the participle ending *-antem* of the first conjugation has been generalized. This levelling to the ending *-amentum*, etc., may have been helped by the fact that under Thomas' law, *-ementum*, *-imatum* of the second and third conjugations would equally give *-ement*.

Traces of an ending *-iment*, indicating an independent development of *-imentum*, are found in O. Fr. always associated with *-tr* verbs. In some cases they may be later adaptations to the *i* stems of these verbs. To the list of substantives in *-iment* given by Cohn, p. 103, I may add O. Fr. *amortiment*, *afieriment*, *amaistriment*, *baniment*, *blandiment*, *bleciment*, *empartiment*, *esco-piment*, *encheriment*, *esperiment* (*experimentum*, probably learned), *finiment*, *pariment*, *mument*, etc. Nearly all have by-forms in *-ement*, and many verbs in *-ir* have only forms in *-ement*, cf. for instance *dormement*, *roissement*, *tlement*, etc. The majority are further widened by the infix *-isc* > *-iss*, as in the present stem of the verb.

Derivatives of the Latin ending *-umentum* are exceedingly rare in O. Fr. *monumentum* : *monument* (Passion), also *mement*, *moniment*, is probably learned, as the signification would indicate. *instrumentum* : *estrument*; here the by-form *storment* would indicate that the word was treated as in Italian, namely, that the initial *i(n)s* was regarded by false analogy as the prothetic *e-i* before *s + consonant*; cf. Ital. *strumento*. This prothetic *e* has no significance in the development of initial or prot tonic vowels, owing to its origin through relations in the stress-group after final consonants; it is frequently omitted in the earliest monuments, and probably never had, in O. Fr., the secondary accent of initial syllables. *strumentum* is also found in the inscriptions. The form *dorment*, beside *dormement*, is probably secondary, with later absorption of prot tonic *e* in the neighbor-

hood of sonants. It may, however, show original syncope. cf. likewise *acesmement* : *acesment*.

For the other suffixes *-torem*, *-ticium*, *-turam*, we find a few by-forms showing original syncope, where the protonic is treated regularly; such are, for example, *debitorem* : *detor*, **consutura* : *costure*, *molitura* : *molture*, **clausitura* : *closure*, *positura* : *posture*, **rasitura* : *rasture*, **clausiticius* : *closiz*, **voluticum* : *voltiz*.

More frequent are derivatives of Latin strong formations without a stem-vowel; as for example, *datorem* : *dator* (learned), *ductorem* : *duitor* and *duïor*, *scriptorem* : *escritor* and *escriëor*, *textorem* : *tistor*, *factorem* : *faitor*, *unctorem* : *oindor* (with *d* from *oindre*), **pinctorem* : *peintor*, also *peigneör*, *pastorem* : *pastor*, *sartorem* : *sartor*, *pistorem* : *pestor*, also *pesteör*, *apertura* : *aperture*, *factura* : *fature*, **finctūra* : *feinture*, *ruptūra* : *roture*, *aventicium* : *aventiz*, *facticum* : *faitiz*.

Instances of derivatives in *iör*, *iüre*, etc., seem to be unknown. The N. Fr. forms in *ituse* are borrowed (cf. Meyer-Lübke, II, 536) *criör*, beside *cricor* (cited by Godef. from Aimeri de Narbonne) to the verb *crier*, *quiritare* is puzzling. It possibly goes back to a Vulgar Latin *qui(i)rītorem*. Difficult are also *traör* and *traditor*, <*traditorem*; cf. the nominative *trätre*.

The forms of the suffix *-tatem* have already been mentioned. In the older language it is appended in the form *-tié*, *-te*, with regular syncope, to the masculine form of the adjective. cf. *amerté*, *cherté*, *deintie*, *ferté*, *feinite*, *folteé*, *grieté*, *ivelté*, *lasté*, *malté*, *meürté*, *naïté*, *pitié*, *plenté*, *salfté*, *seürté*, *vilté*, *verté*, (or *vreté*, with metathesis). Sometimes to the stems of substantives cf. *amis-tie*, *beneürté*, *eürté*, *mendistie*, *veveté*. Later it is attached to the feminine, *lasseté*, *pureté*, *saleté*, *foleté*, *chastelé*, etc. cf. Meyer-Lübke, Gr., II, 537. Certain older forms, however, showing loss of the initial *t* of the suffix and retention of the protonic *e* are more difficult of explanation. Such are, for example, *arestè* <**arrestatatem*, *chasteè* : *castitatem*, *neté* : *nitiditatem*, *ordeé* : **horriditatem*, *puteé* : **putiditatem*, *quiteé* : **quitaditatem*, *sainté* : *sanctitatem*.

The by-forms *chasté*, *quité*, *sainté*, are also found, though they are generally later. Meyer-Lübke (*l.c.*) regards the retention of the protonic as due to the fact that otherwise the final consonant

of the stem and the initial consonant of the suffix would coincide. At any rate they are not strictly organic developments, but have arisen through some analogical influence, as the by-forms show.

The Protonic before Liquids or Nasals.

I have already discussed the peculiar nature of the combination, consonant + sonant in the position before the tonic syllable, and shown how doublets easily arise; and how this was due to the compound (*zweigipfig*) stress of the accented syllable. The question arises, whether this development was in all cases secondary, the new protonic syllable developing from the voice of the vowel-like consonant, or whether it represents the original protonic in a weakened state; in other words, whether syncope was originally complete or not. This question cannot easily be answered, owing to the limited extent of the early monuments. It seems probable, however, that the vowel of the protonic syllable was regularly so weakened as to be absorbed by the voice of the following vowel-like consonant, and that then doublets existed showing an evident protonic syllable with *r*, *l*, *n*, or not, according to the tempo of the pronunciation, and the relations of the stress-group. The orthography would indicate only one of these doublets, generally the "syncopated;" nevertheless, as the following examples will show, the longer by-form has been quite frequently preserved; and in some cases this new protonic syllable is retained till the present day. Whether the orthography *el*, *er*, *en*, adopted for the protonic syllable of these longer forms, expressed simply a sonant liquid or nasal followed by the homorganic consonant, *rr*, *ll*, *nn*, or whether an indefinite vowel *e* was pronounced, it seems impossible to decide. The difference in pronunciation between *rr* and *er*, *er* is so slight that the question is not of great importance.

It is necessary to distinguish carefully between such cases where the preservation of the protonic syllable is due to analogy, and where this "svarabhaktic" development really occurs. I cite first those examples with regular syncope; second, those generally syncopated, but with by-forms having the apparent preservation of the protonic; third, those where the longer forms are the rule and syncope the exception.

1. Examples with regular syncope; without by-forms. *aestimare* : *esmer*, **cingulare* : *cingler*, *ambulare* : *ambler*, *circinare* : *cerner*, **ad-costurare* : *acostrer*, **circinella* : *cernelle*, **ad-vesperare* : *avespres*, **chresimalem* : *cresmel*, **baculare* : *bacler*, *coagulare* : *caillier*, *bajulare* : *baillier*, *blasphemare* : *blasmer*, **buccularius* : *boclier*, *desiderare* : *desirer*, **bodinaticus* : *bonage*, *considerare* : *consirer*, *cincturare* : *ceintrer*, also *ceinturer*, with levelling; **disjunctare* : *disner*, *decimare* : *dismer*, **ex-fondulare* : *esfondrer*, **impasturare* : *empastrer*, also *empasturer*, with levelling; *fibulare* : *fubler*, **frixulare* : *fresler*, **farsurare* : *fastrer*, **fraxinire* : *frais-nir*, **iterare* : *erre1*, **im-pulverare* : *empoldrer*, *leporarius* : *levrier*, *machinarium* : *maignier*, *manfurinum* : *mandrin*, **interalia* : *entraille*, **martoretum* : *martroi*, *involare* : *embler*, **oculettus* : *ocillet*, *nubilare* : *nubler*, *marginare* : *marner*, *pectinarius* : *peignier*, **pectorina* : *poitrine*, **pisturinum* : *pestrin*, *piperata* : *peuree*, **pastinaceus* : *pasnais*, **proximarius* : *proismier*, **rasculare* : *rascler*, *sabulonem* : *sablon*, *sanguinare* : *saignier*, *sanguilentus* : *sanglant*, *satureja* : *sarroie*, *sifilare* : *siffler*, **seculare* : *sillier*, *septimana* : *semaine*, **stabulire* : *establir*, **resinare* : *resner*, *strangulare* : *estrainler*, **taxomaria* : *taisniere*, *testimonium* : *tesmoin*, **vicinaticus* : *visnage*, etc.

Examples of syncope where the protonic stands between two vowel-like consonants are: *camerare* : *chambrer*, **cineratum* : *cendré*, **ad-terminare* : *atermer*, **baronare* : *barner*, **colyretum* : *coldroi*, **colerina* : *corine*, *horologium* : *horloge*, *luminare* : *lumer*, *in-taminare* : *entamer*, **intenerire* : *entendrir*, **ilunata* : *aunée*, *meliorare* : *mieldrer*, *molinata* : *molnée*, *memorare* : *membrer*, *molinarius* : *molnier*, *minimare* : *mermer*, *numerare* : *nombrer*, *minimare* : *semér*, **tremulare* : *trembler*, *ruminare* : *rumer*, *ululare* : *hurler*, *carminare* : *charmer*, *simulare* : *sembler*, *verminare* : *vermer*, etc.

2. Examples with, in general, regular syncope, but which occasionally show by-forms with "svarabhakti." *angulata* : *anglée*, likewise *anglos*, etc., but **angulettus*, *anglet*, *anguelet*, (cited by Godef. from Molinet, Chron.), N. Fr. *anguleux* is learned. **angelettus*, *anglet*, *angelet*, (cited by Godef. from Ger. de Coinci). **arboraticum* : *arbrage*, etc., but *arboraria* : *arbrier* : *arberiere* (G. de. Coinci in Godef.). **asperella* : *asprele* : *asprelle* (cited by Godef. from Le grant Herbier), N. Fr. *prèle*,

always *aspresse*, etc., *ad-titulare* : *atitler* : *atiteler* (Rois.), a learned form. *ad-temperantia* : *atemprance* : *atemperance*, (cited by Godef. from Pierrot de Neele) ; likewise *atemprement* : *atemperelement* (from J le Fevre in Godef.) These are possibly learned. **biberare* : *bevrer*, etc., but *bevrage* : *beverage* : *beveresse*, (from a Gloss. lat. fr. in Godef.) *beverie* (Petit Plet. in Godef.), *beverant* (Poème moral in Godef.), *embeverer* (Trad. de Rob. de Lincoln in Godef.), **buculare* : *bocler* : *boukeler* (Les Loherains in Godef.), *capulare* : *chapler* : *chapeler* (from texts of the Fourteenth Century in Godef.) ; likewise, *chapeleiz* (from a text of the Fourteenth Century), *dechapeler* (from a text of 1461), *carcerarius* : *chartier* : *charteriere* (Adenet le roi.), *circulare* : *cercler* : *cerceler* (cited by Godef. from Palsgrave), *coperire* : *covrir*, but notice *covrel* : *eouverel* "herse." **cooperculatus* : *couverclé* : *couvercelé* (cited by Godef. from L. de Beauveais), **de-liberare* : *delivrer*, but *delivrement* : *deliverement*, *delivrable* : *delivable* (very late, from a text of 1633 in Godef.), **de-abanterianus* : *devantrien* : *devanterien* (from a text of 1277 in Godef.), *de-populare* : *depeuplier* : *depeupelier*, half-learned (from the Geste des ducs de Bourgogne in Godef.) **im-pauperire* : *empourrir* : *poverir* (from an Anglo. Fr. text of the Fourteenth Century in God.). *indirectum* : *endroit* : *endereit* (Vie de St. Thomas de Canterbury in God.), **in-tabulare* : *entabler* : *entaveler* (from a text of 1395); likewise *entableüre* : *entabaleüre* (from a text of the Fourteenth Century). These may be levelled to *tavelle*. *labrum* : *levre*, therefrom *esbaulerver* : *esbauleverer* (cited by Godef. from the Destruc. de Rome), ex-**cooperare* : *escoverer* (cited by Godef. from Gui de Warwick), Germ. *stapul* : *estaple*, therefrom *estaplage* : *estapelage* (cited by Godef. from the Cont. de Bouillon), *fabulare* : *fabler*, also *fablel*, *fableör*, etc., but *fablet* : *fabelet*. **jocularare* : *jogler*, but *jocularem* : *jogler* : *jogeler* : *jogelerie*, etc., (cited by Godef. from the Hist. de Fitz. Warin), **lectorinum* : *lectrin*, but **lectorile*. *leitril* : *leiteril* (Villehardouin), *liberare* : *livrer*, but *livrance* : *liverance* (Tristau). **misculare* : *mesler* : *meseler*, **marmorinus* : *marbrin* : *marberin*, the last is comparatively common in O. Fr.; cf. the examples in God.; O. Fr. *marbre* ; therefrom *martrine* : *marterine* : *martrin* : *marterin*, *ministerialem* : *menestrel* : *menesterel* (from J. le merchant in God.), **ministerarius* : *menestrier* : *menesterier* (from text of 1402 in

God.), *operare* : *ovrer*, but *overaigne* : *ovraigne*; the first is common in O. Fr. texts. That here a real protonic syllable was present, not a mere orthography, is shown by such lines as *overayne ne put durer* (Merlin), etc. **purpurinus* : *porprin*; *porperin* (Tristan), *pauperinus* : *povrin* : *poverin* (Alex.), also *povrement* : *poverement* (Horn), *recuperare* : *recoverer* : *recoverer* (Marie de France); likewise *recoveryment*; *recoverement* (Rob. Grosseteste in Godef.): *recoverier* : *recoverier* (G. Garnier in God.); O. Fr. *rufle* (< O. H. G. *hruf*), therefrom *ruffel* : *ruffelet* (cited by Godef. from a text of 1481), *rufflet ruffelet*. *sarculare* : *sardler*, but *sarcleresse* : *sarqueleresse* (cited from a text of 1578 in God.), **sufferire* : *soffrir*, but *sofrance* : *suferance* (cited by Godef. from H. de Valenc.) *sofrible* : *soferable* (from a late Angl.-Norm. text in God.), *tabulata* : *taulée*, *tabélé*, etc., but, as half-learned forms *tavelet* (from a text of 1366), *taveleret* (1443) : *tavelier* (1377). All may have been influenced by *tavelle*. **temperare* : *temprer* : *temperer* (Jean Bodel), *temprif* : *temperif* (cited by Godef. from L. d' Etaples. Bible), *titulare* : *titler* : *titeler*, learned, O. Fr. *tetre* (**ter-trum*, cf. Körting *Wörterbuch*), therefrom *tertrel* : *terterel* (Maugis d'Aigremont).

Examples of this development where the protonic stands between two consonants are : **burrulare* : *borel* : *burreler*; this may be influenced by *borel*. *cameraria* : *cambriere* : *chamberiere*, *cumulare* : *combler*, but *comblete* : *combelete*, **hominaticum* : *omage* : *omenage* (Benoit, etc.); also *omenois* : *omenegie*. This example shows that this development in the protonic syllable is very old, before the assimilation of *mn* > *m*.

3. Examples where this apparent retention of the protonic syllable is the rule, but which show occasional syncope. These are much less numerous than the forms just considered, where the shorter sentence-doublet in general prevails. This is not surprising when we consider how strong the tendency toward syncope was. I shall cite here also such words as show apparent reduction to *e* of an originally different protonic vowel, in which the possibility of analogical influence seems excluded. Some of these may be partly learned.

angelorum : *angelor* (Alexis), never **anglor*, *ventilare* : *venteler*, cf. N. Fr. *ventiler* a pure loan-word. **famulentus* : *famegent*, Mid. Lat. *gobelinus* : *gobelin*, rarely *goblin*. *imperator* : *empe-*

rere; and likewise *empereör*, *empereriz*, etc. This word-group was difficult for Darmesteter, and has been explained as of partly learned origin. Armstrong (*Mod. Lang. Notes*, X, 356) assumes that the word was felt as a compound *im-perator* (from *parare*, but this etymology is doubtful) in which case the retention of the prot tonic syllable is regular. But why can we not regard it as a case where from the beginning—from some reason now difficult to trace—the longer doublet was generalized. cf. the Vulgar Latin form *impratori*, in Schuchardt, II, 431. Compare the words *souverain* and *sevelir*, which show the same generalization of the longer form, except that with these the syncopated form has been by chance preserved.

inimicum : *ennemi*. Darmesteter suggests a Vulgar Latin etymon **inamicus*, but Thomas, because of Prov. *enemi*, *ini-mi*, rejects this and suggests a partly learned origin. It, however, can be placed under this category. *ordinare* : *ordener*; **orner* (cf. *orne*) seems not to be preserved. The necessity of distinction from *ornare* : *orner* has probably led to the early generalization of the longer form in this case. N. Fr. *ordonner*, has been influenced by *donner*. **pimpinella* : *pimpenelle*, later *pimprenelle*. Syncope would produce **pimpnelle* : **pinnelle* : **pimelle*, which is not preserved. *pompholygem* (Gk. πομφόλυγε): *fanfelue* : *fanfrelue*. This word is not entirely popular. *debitorissa* : *deteresse*, *sepelire* : *sevelir*, rarely *sevlir* (Rom. d'Alecsandre). The reason for the preservation of the longer form in N. Fr. is difficult to discover. *superanum* : *soverain*, rarely *sovraint* (Rom. de Thebes). On the development of this word according to its position in the stress-group, cf. Karsten, l.c. **tertiolettum* : *tiercelet*, *abstinentia* : *astenance*; this may have been felt as a compound; cf. *contenance*, etc. *in-tümular* : *entemeler*; partly learned, as *ü>u* shows; **felonosus* : *felenos*; this word may have been influenced by *felon*; but in that case we should expect the full vowel *felonos*, which in fact is the more common form. **gentilicium* : *gentelis*; the possibility of influence by *gentil* seems excluded by the quality of the apparent prot tonic vowel. **cardonetum* : *chardenoi* (cited by Godef. from a text of 1256.); also *chardonoi*, *chardonel*, etc., which have been levelled to *chardon*. **miserinus* : *meserin*; also *meserel*, never **mesrin*. Compare *mesre*. Peculiar to the Eastern dialects.

**reveranus* : *reverain* (from a text of 1356 in Godef.) Probably partly learned in form, cf. N. Fr. *révéarer*, *révérend*, etc. **saporosus* : *saveros* (J. Bodel) beside *savoros*, which is levelled to *savor*. **rubiolenum* : *rouvelet*; cf. Cohn : *op. cit.*, p. 207. **populinus* : *popelin*: cf. *peuplier*, *hortulanum* : *ortelain*, **hortulaticum* : *ortelage*, etc., never syncopated. For similar examples in place-names, see Lindstrom, *op. cit.*, p. 61.

The following examples show the results of various processes of levelling, so that they do not belong in this category. **amorosus* : *amoros*, cf. *amor*, **annulare* : *anneler*, cf. *annel*, **alenare* : *haleiner*, cf. *haleine*, **astellarium* : *astelier*, cf. *astel*, **ad-sationare* : *assaisonner*, cf. *saison*, **caminata* : *cheminer*, cf. *chemin*, **caveolare* : *cajoler*, cf. *cajole*, **cellerarius* : *cellerier*, cf. *cellier*, **cocinare* : *cuisiner*, cf. *cuisine*, *coronare* : *coroner*, cf. *corone*, *dolorosus* : *doloros*, cf. *dolor*, **ex-quartulare* : *escarteler*, cf. *quartel*, *farinarius* : *farinier*, cf. *farine*, *choraulare* : *caroler*, cf. *carole*, *candelabrum* : *chandelier*, cf. *chandelle*, *instaurare* : *estorer*, cf. *estore*, **mesurare* : *mesurer*, cf. *mesure*, *carbonarius* : *charbonnier*, cf. *charbon*,

Borrowed words are, *altérer*, *anguleux*, *ancolie* (*aquileja*?), *artimaire* (*artem magicam*); *accélérer*, *centenier*, *delié* (*delicatus*; cf. *delgie*) *dioré* < *decoratus* (?) cf. *advocatus*, *avoué*. Can this word have undergone, through folketymology, the influence of *auratus*, *oré*(?); *dominer*, *reculer*, *luminer*, *gramuler*, *labourer*, *literaire*, *modérer*, *nebuleux*, *général*, etc., etc.

I may call attention also to the following doublets—all derived from Godefroy—which exhibit likewise the effect of the principles of “*svarabhakti*” or of the syncope, according to the tempo of the pronunciation. *abrotonum* : *aurone* : *averoine* (Gloss. lat. fr. de Glasgow). *denier*, therefrom *adenerer*, but also *adnerer* (from a text of 1477), *almande* (*amygdala*?) : *alem-ande* (Rose), *alevoire* : *alvioire*, sorte de bâteau (from texts of 1255 and 1355 respectively. Ety?) *tenuem* : *tenve*, therefrom *atenvir* : *atenevir*, *atenver* : *atenever*. O. Fr. *tropel*, therefrom *atropeler* : *atropler* (Kassidor), *aventure*, therefrom *aventuros*, but *aventreus*, with regular syncope (Dit. de la rebell. d'Engl.), *aviron*, therefrom *avironer* : *avroner*, the older form (St. Brandan), *baronie* : *barnie* : *baroner* : *barner*, the longer forms are levelled to *baronbletron* (Gaimar) : *bleteron* (Lancelot), Ety? O. Fr. *bot*, *boter*, therefrom *botrel* : *boterel* (Girbert de Metz),

chevron (**capronem*, according to Littré), therefrom *contre cheveronner terre*, therefrom *desosteraïn* : *desostrain* (Froissard), *dourderet* : *dourdret* “sorte de monnaie.” Etymology? **canthellus* : *chantel*, therefrom *enchanteler* : *enchantler* (Partan), *chapel*, therefrom *chapeleüre* : *chapeleüre* (from a text of 1312) *endenvene* : *endemnè* “qui ne peut pas rester en place.” *venin*, therefrom *envenimer*, then, by dissimilation *envelimer* : *envilimer* (Gloss. lat. fr.), **ex-renare* : *esrener* : *errener* : *erner* (Baïf), O. Fr. *gabel* (Germ. *gab*), therefrom *gabeler* : *gabler* (Earliest; paraphrase of canticles), O. Fr. *gabelle* (Germ. *gaful*), therefrom *gabellage* : *gablage* (text of 1399). O. Fr. *hamel*, therefrom *hamelet* : *hamlet* (Angl.-Fr. text of the Thirteenth Century). O. Fr. *literon*, N. Fr. *litron*. Ety? *palemail* · *palmail* “jeu de mail,” O. Fr. *peterelle* (from *Petrus*, learned), N. Fr. *petrelle*. *petrinet* : *petrigneth* (Cambridge Ps.) “le plus petit.” *piffler* : *pifeler*, “fouler aux pieds.” Ety? *pulmentum* : *polment* : *polement* (Mys. du viel Test.) *publicanus* : *poplican* : *popelican*, a common form. Loan-words *pulvrin* : *pulverin* (Sixteenth Century), *rabobeliner* : *rabobliner* “racommoder” (Anc. Thcat. frç). *sublin* : *subelin* (Rabelais), très fin, subtil.” Is this connected with *subtilis*, perhaps Vulgar Latin **subtilinus*. *subgrunda* O. Fr. *souronde*, N. Fr. *severonde*. Got. *manvjaū* : *manvīr* : *manevir*: the latter is the common form.

I may call especial attention in the above list to the forms *averaine*, *atenevir*, *cheveronner*, *pulement*, *severonde*, *manevir*. These show plainly the secondary development of a “svarabhaktic” prot tonic syllable from the voice of the vowel-like consonants, and thus confirm the view that the doublets are due to this cause, and not to the retention of the original prot tonic vowel.

In direct connection with this subject stands the syncope of vowels before liquids in original initial syllables. This syncope arises through relations in the stress-group. When the word stands in close syntactical relation with another, the two are uttered with the utmost possible economy of force; they are bound together with a single expiratory impulse, and so the originally initial syllable, with its secondary accent, sinks to a lower degree of accentuation, and undergoes the normal development of the prot tonic. The form *endereit*, quoted above, compared with the usual simplex *droit*, illustrates the intimate con-

nection existing between syllable-loss and sentence-position, and the disturbing effects on this relation through mutual analogy. These relations were active at all periods: some words with this contraction appear in the earliest monuments; in others the loss is late and the rule only in new French. cf. especially G. Paris, explanation of the relations in the future forms *farai*, *ferai*, *frai*. Romania, XXII, 570.

Examples, many of which are well known, are: **beryllare*, *briller*, *bi-ramica*, *branche*, O. Fr. *beloce*, therefrom *belocièr*, *blozier*, (cited by Godef. from Vaug. Idill.) O. Fr. *beluter* derivative of *buître*, *burium*, N. Fr. *bluter*, likewise *belutoire*, *blutoire*. **bis-rotetta*, O. Fr. *berouette*, N. Fr. *brouette*, O. Fr. *beluette*, diminutive of *bellue*: **bisluga*, N. Fr. *bluette*. *corrosus* : *cros* : *creux*, **corrotulare* : *crouler*, *directum* : *droit*, cf. *endereit*, supra. *directiare* : *dresser*, *corrivia* : *courroie*, therefrom O. Fr. *coroiete* : *croete*. **de-rationare* : *deraisnier*, also *draisnier* (Vie. de St. Thomas de Canterbury), **ferritta* : *frete* (Diez' etymology, doubtful). *filum lana* : *flaine* (?), *furunculum* : *furoncle* : *froncle* (cited by Godef. from R. Estienne) *quiritare* : *crier*, O. Fr. *pelaud*, derivative of *poil*, therefrom O. Fr. *pelauder* : *plauder* (Bou de Peviers in Godef.). Other derivatives of *poil* show the same doublets. *pelis* : *plis*, *pelicon* : *plicon*, O. Fr. *peloter*, "ballotter, repéter," *ploter* (Farce du Cuvier in Godef.). O. Fr. *peloton* : *ploton* (cited by Godef. from texts of the Sixteenth Century), O. Fr. *pelottoir* : *plottoir* (cited by Godef. from a text of 1469). O. Fr. *peluc* : *pluc*, N. Fr. *peluche* : *pluche*, *pilucare* : *pelucher* : *plucher*; N. Fr. *éplucher*, **perustulare* : *brusler* (?) *veracus* : *verai* : *vrai*.

The Protonic Vowel before Two Consonants.

Before considering the cases where the protonic is really "in position," a small group of words demands attention, where the protonic vowel is followed by mute + liquid. The vowels are treated generally before this group is in an open syllable; and accordingly we should expect outfall of the protonic to be the rule, as it is before a simple consonant. But many examples seem to contradict this.

peregrinus : *pelerin*, **integrinus* : *enterin*, also *entrin*, already in St. Brandan. **deretranus* : *deerain*, *dererain* : *derrain*. The

last is the earliest. *multeplicat* : *molteplie*, *catedralem* : *chaerel*. On the other hand, *ossifraga* : *osfraie* : *orfraie*, **pulletranum* : *poltrain*. Learned words are, *fenu-graecum* ; *fenu-grec*, *filu-granum* : *filigrane*, *tenebrosus* : *tenebros*, *integrare* : *entégrer*, *genetricem* : *genetris*, *meretricem* : *meretris*, also *mertris* (cited by Godef. from *Les Loherains*). *consobrinus* : *cousin* offers so many irregularities that it may be left out of consideration. See Meyer-Lübke, *Gr.*, I, 521.

The above list shows, especially before the group *gr*, a tendency toward retention of the protonic. Many of the words may be explained as the result of analogy; thus *chaerel* to *chaere*, *poltrain* to *poltre*, etc., but for *pelerin* such an explanation is impossible (Schwan, *Afr. Gr.*, p. 79, holds *pelerin* and *enterin* for learned words). I am of the opinion that here the same principles have been at work that were noted above for the simple liquids. A svarabhaktic syllable was developed from the voice of the *r* before the assimilation of the guttural. cf. the similar process in *integrum* : *integrrum* : *intégrrum* : *entier*. Apparent retention of the protonic would naturally result. That, however, these forms are the result of phonetic relations in the stress-group, and not of a well-defined law by which the protonic is preserved before *gr*, as Darmesteter assumes (cf. also Meyer-Lübke, *Gr.*, I, 275), the early doublet *enterin* : *entrin* shows.

The Protonic in Position.

As stated above, Darmesteter left this case—where the protonic stands before two or more consonants—out of consideration, although he hinted that it undergoes a different development. See especially Lindstrom, *op. cit.*, chap. IV. Lindstrom assumes as a law that protonic *e*, *i*, *o*, *u* is always retained before two or more consonants. But his own examples do not fully substantiate this conclusion. cf. *Anvers*, etc. As the Gallo-latin vowel-syncope is the result of a greater stress laid on the tonic syllable, with a corresponding weakening of the unaccented, it is difficult to see why this result should not have obtained in close syllables as well as open ones. It must be remembered that the date of the final outfall of the protonic is comparatively late, probably after most of the processes of consonant-assimilation had been completed, so that originally closed syllables had become open.

That a closed syllable offers perhaps more resistance to the process of weakening may be shown by the Latin vowel-reduction. There a short vowel is reduced to *e* originally, and remains at this stage in closed syllables ; but in open it sinks still further, to *i*. (See Lindsay, *op. cit.*, p. 188, ff.) But it is doubtful if this resistance could be effective against the much stronger tendency toward weakening that prevailed in Gallic Vulgar Latin. Moreover, as Karsten, *l. c.*, argues, when several consonants come together, they may be reduced by assimilation ; a "Stutz-vocal" for the sole purpose of easing the pronunciation is not necessary. (Why, however, assume **soschon* as the regular form of *suspicionem*? The group *cti* can only give voiceless *s* in central French, so **sosson* would perhaps be more correct.) Combinations of two or more heterorganic mutes may in fact be pronounced without a particular voice-glide between them, if the speech organs be brought into position for the second, before the contact of the first is loosed. In this case the first consonant will consist of a simple stop, without the usual following explosion. On the other hand, when the stop of the first consonant is exploded before the contact of the second is formed, then the synthesis cannot be effected without a perceptible voice-glide, which will probably constitute a "Nebensilbe." So that the retention or non-retention of the protonic syllable would depend on relations of tempo ; but these relations are so disturbed by analogical influences that it is difficult to trace them.

A double consonant made "position" in Latin and was undoubtedly pronounced with two force-impulses, as in Italian. The consonant has been simplified in French, but seem to have left traces in the preservation of the protonic syllable. Examples, where all possibility of analogy is excluded, are rare. Possibly the following may serve to exemplify the law : *abellana* : *avellaine*, **forcillatus* : *forcé*. Mid. Lat. *oppellanda* : *houppelande*. These examples contain the double liquid *l*, and so are treated like those which have the protonic in position before liquid + consonant. In these, the retention of the protonic syllable is regular ; so the same may be assumed for the above. The development would be *abellana* : *avellana*, *avl-laine* *avelaïne*, exactly like the development in *paupertatem* : *po-ver-tet* : *po-vr-té*.

All other instances which show the retention of the protonic vowel before a double liquid or nasal are exposed to the suspicion of analogical influence. Such are all verbs like *rebellare* : *reveler*, which may be levelled to the stem-accented forms. Such cases are very numerous ; cf. *chamelin* : *chamel*, *chanceller* : *chancel*, *chodeller* : *chodel*, *maiselliere* : *maiselle*, *flaëller* : *flaël*, *paiseler* : *paisselle*, *rasteler* : *rastel*, *taveler* : *tavelle*, *chevclu* : *chevel*, *eschantellon* : *chantel*, *chastellain* : *chastel*, *porcellaine* : *porcel*, *avorir* (*abhorrire*) : *avor*, *empenner* : *empenne*, etc.

I have been able to find no certain examples where the protonic stands before a double mute or spirant. In the following the stem-accented forms have evidently been influential : **extuppare* : *estoupper*, **sangluttare* : *sangloter*, **ingluttire* : *englotir*, **qualottare* : *cahoter*, **fringuttire* : *frangotter*, **embuccare* : *emboucher*, **ingressare* : *engresser*, etc.

The Protonic before Sonant + Consonant.

As indicated above, the protonic syllable is retained in this position. The liquid or nasal can never be lost in a consonant-group ; therefore, when stress was withdrawn from the unaccented protonic, these would assume syllabic function,—the syllable being thus preserved, although the original vowel was probably weakened or lost. The variation in spelling that is found in *povreté* : *poverté*, *covreture* : *coverture*, etc., show that phonetic value of the protonic syllable in these cases was that of sonant *r*. Examples which seem free from analogical influences are, *paupertatem* : *poverté* : *povreté*, *coopertorium* : *covertoir* : *covretoir*, likewise *covreture*, etc. *nocturnalem* : *nuiternel* : *nuitrenel* (Oxford Psalter). Notice that protonic *ur* has become *er* = *r*; *voluntatem* : *volenté*. (On the spelling *volanté*, *Besançon*, etc. cf. Förster, *Ztschr. Rom. Phil.*, XIII, 535; G. Paris, *Rom.*, XVIII, 352.)

Forster's law (protonic *on* > *āu*) can only hold good for protonic *on* that has been maintained by analogy. The retention of the full vowel in the protonic syllable is unlikely,—and unknown except by analogical influences. Later nasalizing of the indefinite vowel developed from the voice of the *ñ* would give *ēn* > *ān*. **expaventare* : *espöenter*, *calumniare* : *chalengier*, *dum interea* : *dementiers*, *redemptionem* . *raënçon*, possibly levelled to *raënt*.

contentionem : *contenson*, levelled, **amentinum* : *amentin*, **repentaculum* : *repentail*, probably felt as a compound. **extendandum* : *estendar*t, **solemnalem* : *solennel*, possibly a borrowed word, cf. *solemne*. Other examples which are probably due to levelling are **recentiare* : *recencier*, **agentiare* : *agencer*, *talentare* : *talenter*, *adversarius* : *aversier*, *hibernare* : *iverner*, *charpentier*, *fermenter*, *entercier*, etc. Examples with the protonic vowel preserved unweakened are in all cases the result of analogy ; thus, *ascolter* : *ascolte*, *immondice* : *immonde*, *reondel* : *reondir* : *reond*, *remorquer* : *remorque*, *aombrer* : *aombre*, *aplommer* : *plom*, etc. **quaterniolum* : *careignol*, is difficult ; it probably shows early metathesis.

Before spirant + mute, protonic syncope is the rule. This is to be expected, since *sc*, *st* begin the syllable in Latin ; therefore the protonic is treated as before as a simple consonant. Examples, *ministerium* : *mestier* ; also *menestier*, which must be the learned form (cf. G. Paris, Alexius, 41). Koschwitz (Commentar, p. 59), holds that *menestier* is the regular form for the period of the Eulalia, *e* being "geschützt" by *n-st* ; and the syncope is later. But *minsterium* is already found in Vulgar Latin. Plautus, *Pseud.* 772, cf. Lindsay, *op. cit.*, 202, and compare Ital. *mestiero*. *avem struthio* : *austruche*, **monisterium* : *mostier*, *magistatem* : *maistie* (dissyllabic). Other examples with the protonic preserved before *st* are either learned or levelled ; thus, *canistellum* : *chanestrel*, cf. *chanestre*, *magisterium* : *maëstire*, learned, cf. *maistie*, supra. *honestatem* : *onesté*, likewise *onester*, cf. *oneste*. **conquistare* : *conquester*, cf. *conquest*, *potestatem* : *poësté*, *poëster*, etc. cf. *potestat* : *poëste*. **pedestare* : *peëster*, cf. *peestre*, **tempestatem* : *tempsté*, cf. *tempste*, *angustatem* : *angusté*, late and learned. **aristarium* : *arestier* : *arestos*, etc., cf. *areste*. *agustare* : *aoster*, cf. *aost*. **capistare* : *chevester*, cf. *capistat* : *cheveste*.

For the group *sc* examples are not numerous. *canescere* : *chancir*, *clarescere* : *cs-clarcir*, *nigrescere* : *noircir*, here the retention of the protonic after *gr* would be regular, but compare *noir*. **rogiscellum* : *ruissel* ; apparent exceptions are **cognoscentia* : *conissance*, **vermiscellum* : *vermissel*, **ramiscellum* : *rameissel* : *ramissel*. The last two words show probably an independent development of the suffix *-iscellum*, in accordance with

Thomas' theory; influenced also by *arbroissel* : *arbrissel*, where the retention of the protonic after *br* is regular. The by-form *raincel* is generally traced back to **ramicellum*, but it can also be from *ramiscellum*, with syncope and levelling of the initial syllable to *ramus* : *rains*.

For the protonic before the groups *ct*, *pt*, I find no certain examples, unless *acceptorem* : *austor* be such. The form shows syncope, but is otherwise irregular. Apparent exceptions, like *delectare* : *delitier*, cf. *delit*. **adruptare* : *arouter*, cf. *aroute*, *respectare* : *respitier*, etc., are levelled, *electeur*, *lectuare*, *refleier*, etc., are learned.

Before a consonant + hiatus *i*, which constitutes "position," as the development of the accented vowels shows, syncope of the protonic is also regular, although the lawful reduction is often hindered by analogy, or other causes.

For *t* + hiatus *i*, examples **sanitiare* : *sancier*, **com-initiare* : *comencer*, **funditiare* : *foncier*.

More frequent is the levelling to the stem-accented forms, cf. **minutiare* : *menuisier*, **cantitiare* : *chantisier*, **sortitiare* : *sortisier*, **ex-lactitiare* : *eslëecier*, cf. *leëce*, **ad-titiare* : *attisier*, **ad-prisiatiare* : *apprivoiser*, **in-vitiare* : *envoisier*.

For derivatives with the suffix *-tionem*, with regular syncope, cf. *venditionem* : *vençon*, **bibitionem* : *boisson*, *partitionem* : *parçon*, **maturitionem* : *meürson* (from a text of 1258 in Godef.), *luison*, by the side of *luoison*, and *duison*, *conduison*, also probably belong here, representing Vulgar Latin **luctionem*, **ducitionem*. Strong formations **luctionem*, *ductionem*, would give *luçon*, *duçon*, cf. *factionem* : *façon*.

By the side of these syncopated forms are found (and much more frequently) by-forms in *-oison*, *-ison*, that is, with the stem-vowel unsyncopated. As examples, I may cite *aombrison* : *aombrir*, *aparoison* : *aparoir*, *avertison* : *avertir*, *batoison* : *battre*, (**battitionem* for **battutionem*, cf. Thomas, *l.c.*), *complison* : *complir*, *creoison* : *croire* (**creditionem*), *faillison* : *faillir*, *fendoison* : *fendre*, *finison* : *finir*, *fondoison* : *fondre*, *gemison* : *gemir*, *guarison* : *guarir*, *luoison* : *luire*, *marison* : *marir*, *partison* : *partir*, beside *parçon*, *plorison* : *plorir*, *repentison* : *repentir*, *vestison* : *vestir*, *vendison* : *vendre*, beside *vençon*, *trahison* : *trahir*, etc.

Cohn (*op. cit.*, pp. 124, 133), assumes that these longer forms

are regular, apparently believing that the prot tonic is not syncopated before *t* + hiatus *i*; he therefore assumes as Vulgar Latin substrata of the syncopated forms **biptionem*, **ventionem*, **partitionem*. But this view can hardly be demonstrated, especially when we consider verb-forms like *sancier*, *foncier*; *venditionem* : *vençon*, and **funditiare* : *foncier* are completely comparable, and both show regular syncope. All difficulty is removed when we assume with Thomas that the suffix forms for each of the conjugations were *-ationem*, *-itionem*, *-ētionem*, and *-itatem*, respectively, and that these were treated independently and attached later to verbal roots. That in a few instances the consciousness of the suffix was lost, with strict syncope as a result, is not surprising; it was probably favored by a slight shifting in the meaning, compare *parçon* "partage," but *partison* "action de partir." See moreover Meyer-Lübke, *Gr.*, II, 395, who also recognizes in *vençon*, etc., the regular forms.

I have already called attention to the fact that these suffixes were often confused, the form peculiar to the stems of one conjugation being carried over to those of others. cf. for instance, *batoison*, *batison*, *vendison*, N. Fr. *fleuraison*, *pendaison*, *pondaison*; *cueillaison*, etc. An interesting form is **minutionem* : *menuison*, with by-forms in *-oison*, and *-ison*; it shows a Vulgar Latin suffix *-ūtionem*, all traces of which have been lost in Provençal, according to Thomas.

Some words in which the suffix *-tionem* appears as *-eçon* are more difficult to explain. Such are *nutritionem* : *norreçon*, **nepotionem* : *neveçon*, **summitionem* : *someçon*, and *anglecon*. According to Cohn, *op. cit.*, p. 126, the first represents Vulgar Latin **nutrectionem*; if so it is regular with preservation of the prot tonic syllable after *tr*. From it a suffix *-eçon* might be extended to other words. For *somecon*, the shorter *somece*, *-summitia*, served as foundation. A similar *-eçon* is found for *-cionem*. cf. also Meyer-Lübke, *Gr.*, II, p. 500.

Before *c* + hiatus *i* we find the following examples of prot tonic syncope, **pollicarius* : *polcier*, **puliciare* : *pulcier*, N. Fr. *épucer*, **berbiciare* : *bercier*, with the suffix *-cionem*, **palicionem* : *palçon*. On the other hand, as apparent exception, through analogy, **conviciare* : *convicier*, cf. *convice*, *parochianus* : *paroissien*, cf. *paroisse*, **peliciare* : *pelicier*, *pelicon*, etc. cf. *pelis*. Another excep-

tion is formed by a group of words with the suffix *-ionem*, **hamicionem* : *hameçon*, **iricionem* : *ireçon*, *senencionem* : *seneçon*, **orecionem* : *oreçon*. Of these words, *hameçon* and *ireçon* have been influenced by **hamice*, **eriz*; for the others, such primitive formations may perhaps be assumed. (cf. Meyer-Lübke, *Gr.*, II, 500; Cohn, *op. cit.*, p. 30). Possibly also, the extinct nominatives **hamez*, **senez*, etc., if we may suppose their existence for a short period in Vulgar Latin may have contributed to preserve the protonic. Such nominatives are apparently preserved in some cases, cf. *supra*, *dace*, *chace*, *trace*, etc., but only in a learned form. cf. moreover O. Fr. *achaise*, possibly *occaseo*.

For the protonic before *s* + hiatus *i* the only example with syncope is *pertusiare* : *percier*. But all exceptions are easily explained by analogy, or as loan-words. cf. *occisionem* : *occision*, borrowed. Derivatives in *-isan* from *-ensianus*, like *partisan*, *courtisan*, *artisan* are loan-words from the Italian. We also find **artensianum*, O. Fr. *artoisan*, levelled to *Artois*, and N. Fr. *artésien*, which can hardly be a popular word. That *-anus* after palatals can become *ien* in loan-words is shown by *chrestiien*, *maximien*, etc.

For the protonic before *d* + hiatus *i* examples with syncope are *viridiarius* : *vergier*, *fastidiare* : *faschier* : *faschos*, etc. Analogous forms are **apodiare* : *apuiier*, cf. *apuie*; **apodialem* : *apoail*, etc. **inodiare* : *ennüer*, cf. *ennuie*. *sordidiorem* : *sordeior*, cf. *sordeis*, *desidiare* : *deseiier*, cf. the stem-accented forms, *meridianus* : *meriaine* is a loan-word. Before *g* + hiatus *i*, examples with syncope, **corrigiata* : *corgée*, **corrigionem* : *corjon*. For the protonic before a labial + hiatus *i*, no examples with syncope are found, but all are evidently levelled. cf. *aleviare* : *alegier*, cf. *alege*, *ad propiare* : *aprochier*, cf. *proche*, *vindemiare* : *vendanger*, cf. *vendange*.

Before two consonants + hiatus *i* no examples show syncope, but nearly all are plainly levelled. cf. **adauctiare* : *aoisier*, cf. *aoise*. **adrectiare* : *arescier*, cf. *arser*, *supra*. *maledictionem* : *maldisson* · *maleçon*, *benedictionem* : *beneçon*, cf. *maldit*, *maleit*, *beneit*. **destrictiare* : *destrecier*, cf. *destrec*. **corruptiare* : *corrosier*, *coroços*, etc., levelled to *corros*, but cf. *corsos*, *supra*. **delectiare* : *delicier*, cf. *delices*. **electiare* : *elicier*, cf. *elice*, similarly *electionem* : *elicon*, *angustiare* : *angoissier*, cf. *angoisse*. suspec-

tionem : sospeçon. This word is generally regarded as proving that the prot tonic, before two or more consonants, was not syncope, but (leaving aside Karsteu's hypothesis of a nominative **sospece*) we find in O. Fr. a verb *suspectiare* : *suspecier*; and the substantive may have been levelled to the stem-accented forms of this, *suspectiat* : *sospece*, etc.

Before *l*, *n* + hiatus *i*, the prot tonic seems to be regularly maintained, and Darmesteter and Meyer-Lübke, *Gr.*, I, 274, assume this to be a phonetic law. Nevertheless, some significant exceptions occur; thus **juveniorem* : *joignor* (Wace, etc.), which on account of the *o* cannot be from *juniorem*, also *jovenor*: levelled to *jovene*. **dominionem* : *donjon*, *dominiarium* : *dangler*, **laciaria* : *lasniere*, **gracilionen* : *greslon*.

On the other hand, examples with the pretonic syllable preserved are, *Avenionem* : *Avignon*, **campinonem* : *champignon*, also O. Fr. *champignol*, etc. *lusciola* : *losegnol* : *rossignol*, **catenionem* : *chaeignon*, cf. *chaine*, **cydoniarius* : *coognier*, cf. *cooing*, **quatrenionem* (for *quaternionem*) : *careignon*, **ingeniare* : *engignier*, cf. *engin*. **ex-graphiniare* : *esgraigner*, *humiliare* : *umelier*, cf. *humiliat-umeille*, **turbilionem* : *tourbillon*, cf. *torbille*, **artilirosus* : *artillos*, likewise *artillier*, etc., cf. **artiliat* : *artille*, **barbuliare* : *barbouiller*, cf. *barbouille*, *dispoliare* : *despouillier*, cf. *despouille*. **inoliare* : *enoillier*, cf. *enoille*, **hostiliare* : *ostillier*, cf. *ostille*, **consiliare* : *conseillier*, cf. *conseil*, **fusiliare* : *fusillier*, cf. *fusil*, *papilionem* : O. Fr. *paveillon*, **scopilionem* : O. Fr. *escouveillon*, *frictiliare* : *fretiller*, cf. *fretille*, **ex-cantilionem* : *eschantillon*, *gurgulionem* : O. Fr. *gourgeillon*, **vestiliare* : *vestillier*, cf. *vestille*, **quadrilionem* : O. Fr. *careillon* : *carillon*, **subtiliare* : *sotillier*, cf. *sotille*.

Of these examples, the majority may be easily explained by analogy, but for some, *paveillon*, *quareignon*, *carillon*, *champignon*, *rossignol*, this explanation is inadmissible. I believe that here again the peculiar nature of the vowel-like consonants is to be seen. Before the period of syncope, *l*, *n*, were palatalized by the following *i*: in slower utterance this *l*, *ñ*, would retain their semi-syllabic character, especially until the hiatus *i* was completely absorbed. The few instances where syncope is found confirm this. The *i*, which appears before *ñ*, *l* in the prot tonic syllable is a new French development, and may be due to the

palatal character of the consonants ; in O. Fr. we find in nearly every case by-forms spelled *-eil*, *-eign*, *-egn*, etc.

Before *r* + hiatus *i*, the syncope is regular. Examples, **guturionem* : *goitron*, **materiamen* : *merrien*, N. Fr. *merrain*, **impasturiare* : *empaistrer*. *antérieur*, *superieur*, etc., are naturally pure loan-words.

Summing up the results for the protonic in position, we may say that the syncope is regular, except where the effect of the phonetic laws has been disturbed by analogy. This conclusion extends the action of the law of Darmesteter, and establishes its invariability. An apparent exception presents itself only where the vowel-like consonants follow the protonic ; their voice has in most cases preserved the protonic syllable. This also harmonizes with the results obtained where the protonic stands before a simple liquid or nasal. In words with more than two pretotic syllables a new question arises as to the position of the secondary accent. This has lately been comprehensively treated by Armstrong (*Mod. Lang. Notes*, X, 350, ff.). His results, which seem to be conclusive, demonstrate the correctness of the view held by Meyer-Lübke, *Rom. Gr.*, I, 273, that the secondary accent in all uncompounded words rested on the initial syllable. *cf.* for contrary views, Darmesteter, who holds that the law of binary accentuation prevailed, *aspéritátem*; and Schwan, *Afrz. Gr.*, p. 29, according to whom the secondary accent follows the same law as the primary; namely, that it rests on the second syllable before the main accent if the same is long; it is short, on the third, *herèditáre*, *àrbòrícullus*.

Accepting Armstrong's view, which is moreover in harmony with the laws of Latin accentuation, in which the main ictus rested originally on the initial syllable and the classical accent-law was the result of a shifting in position of the former primary and secondary accents, we should expect to find that the pretonic half of the word treated exactly like the post-tonic—that is, the original protonic syllable would be subject to the same laws as the final in proparoxytones. This, however, is the case but rarely, as the following examples will show ; in many instances it is the protonic syllable which disappears, while the second pretonic syllable, corresponding to the penult in proparoxytones, is preserved. Armstrong accounts for this by a regressive ac-

tion of the main ictus ; the syllables standing immediately before or after the tonic syllable were more liable to be weakened through its greater stress than those farther off. Can this view be justified ?

The relation of accent-grade among the different unaccented syllables in Latin is very obscure. The stress given to each particular syllable would probably vary according to its position in the stress-group ; and the influence of related words would be important for their cognates. Thus, in *amāritudo*, for instance, the *a* in the second pretonic syllable would probably at all periods be more highly accented than the protonic *i*, through the analogy of *amárus*, so that we have O. Fr. *amertume* instead of a possible **ambretume*. This principle, in my opinion, suffices in nearly all cases to explain the preservation of the second pretonic syllable. On the other hand, in isolated words without allied shorter cognates, the gradations in degree of stress in the pretonic syllables would probably follow the rule for the post-tonic, namely, a secondary accent on the initial syllable, followed by two weaker syllables, of which the last or protonic has the greater stress.

Certain phenomena of syncope found even in classical Latin confirm this view ; cf. for instance, *altrinsecus* with *alteri*, *postridie* with *posteri*, *officina* with *opificina* (Plautus). Cf., moreover, the vulgar Latin forms in Schuchardt like *opermenti*, *autortate*, *immenstate*, but, on the other hand, *impratori*, *virdiario*, *terbentinae*, *depositione*. Schuchardt's examples show syncope of the second pretonic syllable in all cases where analogy does not come into play.

In these instances, the syncope affects the syllable immediately following the initial ; not the one standing next to the tonic accent under the later accent-law. Similarly, in French we find many cases where of three pretonic syllables the second regularly disappears. One exception may possibly be admitted. Pretonic *a*, in whatever syllable it may have stood, may have received at all times greater stress than the neighboring vowels. But the scarcity of material hardly permits a decision on this point ; *paraverēdus* : *palefroi* seems to be only certain instance.

Hiatus *i* in the second protonic syllable, like all other hiatus vowels, suffered early reduction to consonantal *i*, and the follow-

ing protonic is treated like others. Syncope is the rule. (The examples where hiatus *i* stands in immediate hiatus to the tonic vowel, I have already discussed.) Here it may be noted that cases of syncope like *partitionem* : *parçon*, **bibitionem* : *boisson*, *fonditiare* : *foncer*, *pretūsiare* : *percer*, etc., refute Schwan's assumption for protonic accentuation, according to which they should have a secondary accent on the long vowel. cf. his example *comparātionem* : *comparaison*. Examples of pretonic hiatus *i* are: **puteolentus* : *pulent*, **badiolettus* : *baillet*, **modiolonem* : *moilon*, *meliorare* : *mieldrer*, **rationare* : *raisnier*, *mansionarius* : *maisnier*, **mansionata* : *maisnier*, **musionellus* : *moisnel*, **passionaticum* : *pasnage*, *curiosolitae* : *corseult*, *societatem* : *soistie*, also *soyesté*, a half learned form. *medietatem* : *moitié*, **medietarius* : *metayer*, is difficult; we should expect **moitier*. The Prov. form *meytadier* would indicate a Vulgar Latin ground form **mediatarius*; cf. **medietadanus* : *mitoyen*; but even then the development seems not to be entirely regular. **tertiolettus* : *tiercelet*, **truncionare* : *troncener*, with apparently irregular preservation of the protonic are both due to the principle already enunciated—development of a weak syllable from the voice of the vowel-like consonants. cf. *ordener* and *hortelain*.

The same law holds good for hiatus *u* before the protonic vowel, both are syncopated, **mansuetinus* : *mastin*, cf. G. Paris Rom., XXII, 597. *consuetudinem* : *costume*. Exceptions like *inquietudinem* : *enquetume*, *mansuetudinem* : *mansuetume*, etc., are not genuinely popular words.

Examples of the retention of the second protonic syllable are the following. I omit all compounds like *encombrer*, *exploitier*, *empostrer*, *aproismier*, etc., where the consciousness of composition was evidently felt. I cite in each case cognate forms which may account for the seeming irregularity. *amaritudinem* : *amer-tume*, cf. *amer*, *desiderare* : *desirer*, cf. *desire*, **formiculionem* : *formillon*, cf. *formi*, *heredetare* : *erede*, cf. the stem-accented forms *hereditat* : *erede*, etc., also *ireter*, *heriter*, *heritage*, etc. **ex-collübriare* : *escolorgier*; cf. **ex-colúbricat* : *escolorge*, with *fabrica* : *forge*. *suavitudinem* : *soatume*; this word is hardly popular; cf. *suavem* : *soef*. **de-ab-interanus* : *derantrain*, cf. *entraigne*, **ex-acquaculare* : *esgaillier*; cf. **ex-acquáculat* : *esgaille*. Notice the development as an uncompounded word.

interrogare : *enterver* ; cf. *enterve*, but the word is also irregular. *adulterare* : *avoltrer*, cf. *avoltre*, *communicare* : *commungier*; cf. *commúnicat* : *communge*. The by-form *comengier* may be regular. In that case I should regard the spelling *en* as the graphic form; it is a parallel to the spelling *er* for *r* often met with in the protonic syllable; cf. for instance, *poverté* : *povreté*, *nuiter nel*, *asperté*, etc. **ex-lucidare* : *eslúidier*; cf. *esluire*, *in firmitatem* : *enferté*, cf. *enferm*, **quadragesimalem* : *caresmel*, cf. *caresme*. **ad-quaesitare* : *aquester*, cf. *aquest*. *famelicare* : *fameillier*; we should expect **famelgier*, but metathesis seems to have occurred; **famecilitat* would give *fameille* regularly. *caballicare* : *chevalchier*; cf. *cheval*, *recuperare* : *recoverr*, cf. *recouvre*, *ex-corticare* : *escorchier*; cf. *escorche*, **juvencellus* : *jovencel*, cf. *jovence*, *ministrialem* : *menestrel*, **ministerarius* : *menestrer*. These last two words are often cited as examples of the preservation of the second protonic syllable. Regular forms would be **mestrel*, **mestrier*, *menstrel*, is actually found in a chart of Liège of 1355. The longer forms are probably influenced by *ministrum* : *menestre*, or by the stem-accented forms of the verb *ministrare* : *menestrer*; *cruelitatem* : *crualté*, cf. *cruel* : *cruel*.

Likewise for all derivatives in *-té*, by the side of which are found substantives or adjectives which serve as simplex. cf. *amerté* : *amer*, *malheurté* : *malheür*, *naïte* : *naïs*, *nienté* : *nien*, *priorté* : *prior*, *novelté* : *novel*, *fealté* : *feal*, *royalté* : *royal*, *amistie* : *amis*, etc. Those with the protonic syllable also preserved are undoubtedly later formations; thus *joliveté*, *laïdeté*, *fraileté*, *moieneté*, *prochaineté*, *seüreté*, *roïdeté*, *veveté*. Some forms with a stem-ending in a liquid or nasal show doublets; thus, *asperitatem* : *asperté* : *aspreté*; this probably indicates only different spellings for syllabic *r*, as has been already mentioned. cf. further *prosperté* : *prospreté*, *foibleté*, *umbleté*. In all of these the two pretonic syllables have been reduced to the vowel-like consonant functioning as syllabic, and present perfect parallels to the theory of final liquids and nasals given above.

Remarkable are the N. Fr. forms *privauté*, *communauté*, *principauté*, *primauté*, and *papaute*, since no adjectives **privau*, etc., exist by the side of them. They have probably been recently borrowed, and modified on the model of *royauté*, which itself is partially learned. Another group is formed by the old words,

**horriditatem* : *ordeé*, **putiditatem* : *puteé*, *nitiditatem* : *netéé*, cf. Meyer-Lübke, *Gr.*, II, 537.

domesticare : *domeschier*, cf. *domesche*, *cupiditare*, *convoitier* : *convvilise*, etc. cf. *cupiditat* : *convoite*. Why is *e* diphthongized in this word?

One exception must be made to the rule that of two pretonic syllables, it is the second from the tonic which is syncopated. This concerns all words which contain further derivatives of the suffixes, *-culus*, *-tulus*; namely all verbs in *-culare*, all adjectives in *-culosus*, etc. In these it seems probable that in all periods in the popular language, the "svarabhaktic" vowel was suppressed. Of course, the influence of the primary substantives and adjectives in *illus* was effective here as elsewhere; but owing to the fact that even when the simplex does not appear in French, the preserved derivative shows loss of the *u*, it may be assumed that the Vulgar Latin substrata never kept the secondary vowel, if indeed it was ever a feature of the popular language. Examples are very numerous. **catabolare* : *caabler*, **cattuculare* : *chatoillier*, **graticulare* : *graellier*, *fodiculare* : *fooilier*, **ex-auriculare* : *essoriller*, **semiculare* : *semillier*, **trabuculare* : *travaillier*, **ante-oculare* : *antoirlier*, **dormiculare* : *dormilier*, *adtitulare* : *atillier*, **paricularius* : *pareillier*, **pediticulare* : *petillier*, *pediculosus* : *peouillous*, **seticulosus* : *seeilos*, etc.

All of these may have been influenced by the primary forms of the verbs, etc. But one example is found where the possibility of analogy is excluded: *matricularius* : *marreglier*. In this the second pretonic syllable persists, since it contains a liquid. Later syncope occurred, *marglier* : *marlier*, after the complete assimilation of the dental, as in *serment*, etc. The peculiar N. Fr. *marguillier* may be explained by the secondary development of a svarabhaktic syllable from the voice of the *l* before the tonic vowel.

As examples of this same syncope in Vulgar Latin I may cite the following from Schuchardt, II, p. 429: *cubicularius*, *coaglari*, *capitlares*, *commanuplari*.

As has already been stated, protonic *a*, in whatever syllable it may stand, seems to resist the tendency toward syncope; owing to its greater sonority, the syllable containing *a* had at all times a greater stress than the surrounding. Examples.—*paraveredus* :

*palefroi, *loraminarius : loremier, later lormier, (Sixteenth Century), *ligaminarius : liëmier, *materiamenaticum : marrenage, *acqualificare : egalgier.* On the other hand, **usutiliare : ostillier*, the etymon is, however, doubtful. cf. also **terraticare : tergier*, cited above, which is earlier than *terragier* (from Picard texts of the Twelfth Century in Godef). This shows that the law for pretonic *a* given above is not absolute. Examples of the loss of the immediate prot tonic syllable which are more difficult to explain are, **cooperticulum : covercil, Eburodunum : Yverdun, cominitiare : comencer, experimentat : espermente* (Rois) ; but *experimentum : esperement*, according to the rule for the suffix *-mentum*.

In all these the pretonic syllables are reduced to *r* so that the preservation of the second pretonic is only apparent, not real ; the spelling *covrecel* is also found. Likewise *cominitiare*, by reduction of all the pretonic sonant elements to that demanding the least stress gives *comncer : comencer, fructificare : frotigier, acdificare : aigier* ; these are hardly popular words ; *fructificat* should give regularly **fruiteche*. Besides *frotigier*, we also find *frougier* (cited by Godef. from the Vie de St. Thomas) with regular syncope.

Examples with regular syncope of the second pretonic syllable, **frigidulosus : frilos*, also *froidelos* (cited by Godef. from a translation of the Fables of Ovid) : *frieillos* ; the last probably secondary forms with Svarabhakti. **animalina : almeline, fructificare : frugier, cf. frotigier, nidificare : niches, *acculentus : aiglent, aurelianensem : Orlenois, *inde minare : emmener, morsus gallinae : morgeline, Corduvensarius : Corvesier, antecessorem . ancestor, *arboriscellum : arbrosseil, *arboricellum : arbroisel.*

In these the retention of the immediate prot tonic is regular after *rb-r* ; the diphthong arises through later union with parasitic *i*. **ad-subitaneare : asoutener, *annotinensem : antenois*. cf. Thomas, Rom. XXI, 506. **dominicare : donoëier* ; but cf. *dominicat : donoie*. Likewise, **tenoricare : tenroïier, *ad-monori-care : amenroïier, *auctoricare : otroïier*, etc. **dominicellum : damoisel : dancel*. This doublet is a parallel to *dame : dans*.

In the more highly accented slower pronounced form the prot tonic syllable is not entirely reduced. On the other hand, in the more rapidly pronounced proclitic form, *m* and *n* are early

assimilated, and the synthesis of the consonantal nasal and the following stop is effected without a voice-glide. **saturejetta* : *sarroiette*, later *sarriette*. *oripelargus* : *orprès*, **salicineta* ; *sal-noie*. This form is interesting for comparison with the treatment of the secondary group *l-c*- as a final in proparoxytones. (*cf. puce, pouce*, etc.) It shows that the retention of the ultima in these words is not really due to the consonant combination, else we should have **salsenoie* here, but to the amount of stress given the syllable. The prot tonic *i* in *sàlicinéta* stands in the more weakly accented part of the word and hence had less stress than the final *e* in *sàlicém*. *cf.* moreover *frugier, nicher*, with a similar reduction of the prot tonic after long consonant combinations, *ct-f d-f*, which would apparently need a "Stützvokal" if final.

VITA.

I, William Pierce Shepard, was born in Utica, New York, U. S. A., June 9, 1870. I received my primary education in the public schools of Utica. In September, 1887, I entered Hamilton College, Clinton, N. Y., where in 1892 I received the degree of A. B., and in 1893 that of A. M. In October, 1893, I matriculated at the University of Heidelberg, as a student of Romance Philology, where I remained five semesters, during four of which I was a member of the Romance Seminar. While there, I attended the courses given by Professors Braune, Neumann, Osthoff, and by Doctor Schneegans, to all of whom, and especially to Professors Neumann and Osthoff I am indebted for much kindly aid. Professor Neumann not only suggested the subject of this dissertation, but his friendly counsel and encouragement have been unfailing during its preparation.

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